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POLITICAL MAP OF SOUTH AMERICA

CARIBBEAN SEA
ATLANTIC OCEAN
PACIFIC OCEAN
VENEZUELA
COLOMBIA
ECUADOR
PERU
BOLIVIA
BRAZIL
PARAGUAY
URUGUAY
CHILE
ARGENTINA
BRITISH GUIANA
DUTCH GUIANA
FRENCH GUIANA
Barranquilla
Cartagena
Maracaibo
Puerto Cabello
La Guaira
Valencia
Caracas
Barcelona
Port of Spain
Orinoco Delta
Merida
Orinoco R.
Ciudad Bolivar
Georgetown
Paramaribo
Cayenne
Medellin
Antioquia
Bucaramanga
Honda
Bogota
Meta R.
Atures
Buenaventura
Cali
Popayan
Tumaco
Bolivar
Quito
Guayaquil
Cuenca
Iquitos
Palta
Piura
Chiclayo
Trujillo
Huaraz
Pasco
Callao
Lima
Ayacucho
Cuzco
Ica
Arequipa
Puno
La Paz
Mollendo
Tacna
Oruro
Cochabamba
Santa Cruz
Arica
Sucre
Potosi
Iquique
Tocopilla
Antofagasta
Jujuy
Taltal
Caldera
Tucuman
Catamarca
Rioja
Serena
Ovalle
Cordoba
Valparaiso
Mendoza
Santiago
Talca
Concepcion
Temuco
General Roca
Puerto Monte
Ancud
CHILOE
Puerto Madrin
Rawson
CHONOS ARCH.
Mt. S. Valentin
Gulf of Penas
CAMPANA I.
WELLINGTON I.
MADRE DE DIOS I.
Strait of Magellan
SANTA INES I.
Punta Arenas
TIERRA DEL FUEGO
Mt. Darwin
STATEN I.
WOLLASTON IS.
C. Horn
Gulf of St. George
C. Tres Puntas
Grande Bay
Santa Cruz
Trinidad
Matto Grosso
Cuyaba
Goyaz
Paracatu
Diamantina
Bello Horisonte
Ouro Preto
Victoria
Petropolis
Campos
Rio de Janeiro
Sao Paulo
Santos
Curitibao
Paranagua
Porto Alegre
Desterro
Laguna
Cruz Alta
Itaquay
Rio Pardo
Uruguayana
Rio Grande do Sul
Pelotas
Salto
Fray Bentos
Colonia
Chuy
Montevideo
Buenos Aires
La Plata
Bahia Blanca
Azul
Tandil
Viedma
C. Corrientes
Blanca Bay
S. Matias Gulf
Villa Pilar
Corrientes
Asuncion
Villa Rica
Concepcion
Pilcomayo R.
Tarija
Puerto Pacheco
Iquique
Arica
Tacna
Arequipa
Mollendo
Callao
Lima
Pasco
Huaraz
Trujillo
Chiclayo
Piura
Palta
Cuenca
Guayaquil
Quito
Tumaco
Buenaventura
Medellin
Bucaramanga
Barranquilla
Cartagena
Maracaibo
Merida
Valencia
Caracas
Barcelona
Port of Spain
Georgetown
Paramaribo
Cayenne
Mouths of the Amazon R.
Obidos
Manaos
Santarem
Para
Braganca
Maranhao
Parnahiba
Granja
Ceara
Aracati
C.S. Roque
Tberesina
S. Francisco
Carolina
Parahiba
Pernambuoo
Joazeiro
Alagoas
Penedo
Aracaju
Bomjardim
Cachoeira
Bahia
Rio de Contas
Cannavleras
Palma
Santa Maria
Francisco R.
Tocantins R.
Araguaya R.
Xingu R.
Tapajos R.
Madeira R.
Roosevelt R.
Purus R.
Juruha R.
Yavari R.
Ucayali R.
Maranon R.
Napo R.
Yapura R.
Negro R.
Amazon River
Branco R.
Parima R.
Oyapok R.
Beni R.
Mamore R.
Geral Mts.
Parana R.
Paraguay R.
Pilcomayo R.
Salado R.
Negro R.
Plata R.
Uruguay R.
Parana R.
Sierra Pacaraima
C. Orange
C. San Francisco
C. Corrientes
Gulf of Panama
Panama Canal
Panama
Colon
Gulf of Guayaquil
Pt. Parina
G. of Guayaquil
V. Cotopaxi
V. Chimborazo
LOBOS IS.
GALAPAGOS IS. (To Ecuador)
ALBEMARLE I.
INDEFATIGABLE I.
ST. FELIX (To Chile)
ST. AMBROSE (To Chile)
MAS A TIERRA I. (JUAN FERNANDEZ IS.) (To Chile)
MAS A FUERA I. (To Chile)
TROPIC OF CAPRICORN
EQUATOR
MARTINIQUE (Fr.)
SANTA LUCIA (Br.)
ST. VINCENT (Br.)
BARBADOS (Br.)
GRENADA (Br.)
TOBAGO (Br.)
TRINIDAD (Br.)
FALKLAND IS. (Br.)
Port Stanley

SCALE OF MILES
0 100 200 400 600 800 1000

Hammond's Political Map of South America
Copyright by, C.S. Hammond & Co., N.Y.

80° 70° 60° 50° 40° 30° Longitude West from Greenwich
10° 0° 10° 20° 30° 40° 50° Latitude

THE WORLD

GALL'S STEREOGRAPHIC PROJECTION

COLONIAL POSSESSIONS

United States		Portugal	
Great Britain		Spain	
France		Netherlands	
Former German Colonies		Italy	

Countries having foreign possessions are colored as above; this color scheme is extended to include Africa and Asia.

Hammond's 8 x 11 Map of The World
Copyright by C.S. Hammond & Co., N.Y.

160° 140° 120° 100° 80 Longitude 60 West 40 from 20 Greenwich 0° Longi

20°
40°
60°
80°
100°
120°
140°
160°
180°
80°
60°
45°
40°
20°
0°
20°
40°
60°
80°
OCEAN
FRANZ JOSEF LAND
PITZBERGEN
Barents Sea
NOVA ZEMBLA
Kara Sea
NEW SIBERIA
Nordenskiold Sea
Alexandrovsk
White Sea
Archangel
ARCTIC CIRCLE
Lena R.
Yakutsk
Petrograd
Tobolsk
SIBERIA
Yeniseisk
Tomsk
Okhotsk
Sea of Okhotsk
Bering Sea
KAMCHATKA
ALEUTIAN IS.
RUSSIA
EUROPE
Moscow
Berlin
Warsaw
Kief
UKRAINE
Odessa
Volga R.
Orenburg
Omsk
Irkutsk
Chita
Amur R.
Nikolaiefsk
MANCHURIA
SAKHALIN
Kobdo
Urga
MONGOLIA
Harbin
Astrakhan
Black Sea
Tiflis
Khiva
Tashkent
CHINESE
Urumtsi
Vladivostok
Japan
KURILE IS.
Constantinople
TURKESTAN
Baku
Bokhara
Peking
Mukden
Hoang R.
Kiaochow
CHOSEN (KOREA)
Seoul
Yellow Sea
Tokyo
Athens
TURKEY
Smyrna
Kabul
REPUBLIC
Tripoli
Teheran
Bagdad
Damascus
PERSIA
Port Said
Alexandria
Hankau
Shanghai
Yokohama
Cairo
EGYPT
Busra
Koweit
Kandahar
Lassa
Chingtu
Yangtze R.
East China Sea
PACIFIC
TRIPOLI (LIBIA)
Karachi
Delhi
Lucknow
INDIA
Yunnan
Canton
Medina
Mecca
Maskat
Calcutta
Mandalay
Hanoi
Hongkong
FORMOSA
BONIN IS. (Jap.)
TROPIC OF CANCER
MIDWAY I. (U.S.)
Bombay
Arabian Sea
Goa (Port.)
Bay of Bengal
Rangoon
FRENCH INDO CHINA
S. China Sea
PHILIPPINE ISLANDS (U.S.)
Manila
MARIANNE IS. (Jap.)
WAKE I. (U.S.)
WALKER I. (U.S.)
GUAM (U.S.)
JAPANESE MANDATE
CAROLINE IS. (Jap.)
MARSHALL IS. (Jap.)
GILBERT IS.
HOWLAND I. (U.S.)
BAKER I. (U.S.)
EQUATOR
Aden
Khartum
ANGLO EGYPTIAN SUDAN
Abeba
ABYSSINIA
BR. SOM.
LACCADIVE IS.
Madras
Bangkok
Saigon
CEYLON
STRAITS SETTLEMENTS
Singapore
MALDIVE IS.
SUMATRA
BORNEO
Pandang
EAST INDIAN ARCH. BRITISH MANDATE
CELEBES
NEW GUINEA
NEW BRITAIN ARCHIPELAGO (Br.)
PHOENIX IS.
LAGOON OR ELLICE IS.
Batavia
JAVA
APUA
SALOMON IS.
TIMOR
Palmerston
Coral Sea
SAMOA IS.
MANUA (U.S.)
TUTUILA (U.S.)
NEW HEBRIDES
FIJI IS.
Townsville
Rockhampton
TROPIC OF CAPRICORN
NEW CALEDONIA
AUSTRALIA
Brisbane
NORFOLK I.
LORD HOWE I.
KERMADEC IS.
Perth
Fremantle
Albany
Sydney
Canberra
Adelaide
Melbourne
Tasman Sea
Auckland
NEW ZEALAND
Wellington
TASMANIA
Hobart
Christchurch
CHATHAM I.
Invercargill
Dunedin
Nairobi
Mombasa
SEYCHELLES
BELGIAN KONGO
TANGANYIKA TERR.
ZANZIBAR
Dar es Salaam
COCOS IS.
Elizabethville
ANGOLA
RHODESIA
PORT MOZAMBIQUE EAST AFRICA
Beira
Mozambique Chan.
MADAGASCAR
Tananarivo
MAURITIUS
REUNION
Bulawayo
Pretoria
Johannesburg
UNION OF SOUTH AFRICA
Lourenco Marques
Durban
Port Elizabeth
KERGUELEN
CAMPBELL I.
ANTARCTIC CIRCLE
ENDERBY LAND
QUEEN MARY LAND
ADELIE LAND
KING GEORGE V. LAND
BALLENY IS.
OATES LAND
SOUTH VICTORIA LAND
ROSS I.

PACIFIC OCEAN
ATLANTIC OCEAN
ARCTIC OCEAN
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEW BRUNSWICK
NOVA SCOTIA
NEWFOUNDLAND
YUKON TERR.
MACKENZIE
KEEWATIN
FRANKLIN
ALASKA
GREENLAND
ICELAND
DENMARK
Mt. McKinley
Mt. Logan
Mt. Elias
Yukon R.
Mackenzie R.
Hudson Bay
Hudson Strait
Baffin Land
Davis Strait
Baffin Bay
Greenland Sea
Denmark Strait
Gulf of St. Lawrence
Great Slave L.
Great Bear L.
Lake Winnipeg
Lake Superior
Lake Athabasca
Lake Winnipegosis
Lake Manitoba
Lake of the Woods
Lake Nipigon
Lake Mistassini
Lake St. John
Lake Nettilling
Lake Amadjuak
Lake Harbour
Lake Melville
Lake Michikamau
Lake Kaniapiskau
Lake Attikonak
Lake Winnipeg
Lake Athabasca
Lake Superior
Lake Nipigon
Lake Mistassini
Lake St. John
Lake Nettilling
Lake Amadjuak
Lake Harbour
Lake Melville
Lake Michikamau
Lake Kaniapiskau
Lake Attikonak
Vancouver Island
Queen Charlotte Islands
Prince of Wales I.
Banks I.
Victoria I.
Melville I.
Ellesmere I.
Baffin Land
Southampton I.
Coats I.
Mansfield I.
Charles I.
Akpatok I.
Resolution I.
Salisbury I.
Cumberland Sd.
Frobisher Bay
Hudson Strait
Ungava Bay
Hopedale
Hebron
Godthaab
Frederikshaab
Julianehaab
Frederiksdal
C. Farewell
Christianshaab
Disco I.
Disco Bay
Upernavik
Melville Bay
Smith Sd.
Kane Basin
Etah
Inglefield Gulf
Cape York
Whale R.
Nelson R.
Churchill R.
Hayes R.
Albany R.
Moose R.
Abitibi R.
Ottawa R.
St. Maurice R.
Saguenay R.
St. John R.
Richmond Gulf
James Bay
Hudson Bay
Foxe Channel
Foxe Basin
Fury and Hecla Str.
Committee B.
Melville Pen.
Boothia Pen.
Gulf of Boothia
Prince Regent Inlet
Lancaster Sd.
Barrow Str.
Parry Channel
Jones Sd.
Smith Sd.
Kane Basin
Kennedy Chan.
Robeson Chan.
Nares Str.
Lincoln Sea
Grant Land
Greenland
Ellesmere Land
Grinnell Land
Heiberg Land
Oscar II Land
Prince Gustav Adolph Sea
Prince Christian Sd.
Princess Marie Bay
Queen Victoria Sea
Prince Albert Land
Wollaston Land
Victoria Land
Borden Peninsula
Brodeur Peninsula
Somerset I.
North Devon
Cockburn
Bylot I.
Baffin Land
Devon I.
Cornwallis I.
Lougheed I.
Amund Ringnes I.
Ellef Ringnes I.
Meighen I.
Axel Heiberg I.
Graham Moore I.
Borden I.
Massey Sd.
Hazen Str.
Nansen Sd.
Sverdrup Chan.
Peary Land
Lambert Land
Amelie Germania Land
Coldeway I.
King William Land
Shannon I.
Pendulum I.
Franz Josef F.
C. Parry
King Oscar Fiord
Scoresby Land
Scoresby Sd.
C. Brewster
Blosseville Coast
Greenland Sea
Strait of Denmark
North C.
Hunafloi F.
Arctic Circle
C. Langanes
Akureyri
Faxa F.
Reikiavik
Reikianes
Iceland
Diupivogr
Vatna Jokull
Mt. Hecla
Julianehaab
Arsuk
King Frederick VI Land
King Christian IX Land
King Oscar Harbor
Umivik
Godthaab
Frederikshaab
Holstensborg
Egedesminde
Sukkertoppen
Umanak
Upernavik
Petermann Mt.
Melville Bay
Inglefield Gulf
Etah
Cape York

NORTH AMERICA

ENGLISH STATUTE MILES
0 100 200 300 400 500
KILOMETERS
0 200 400 600 800

1. Vermont
2. New Hampshiro
3. Massachusetts
4. Connecticut
5. Rhode Island
6. New Jersey
7. Delaware
8. Maryland

Hammond's 8 x 11 Map of North America.
C.S.Hammond & Co., New York.

F 120 G 110 Longitude H West 100 from J Greenwich 90 K 80 L

UNITED STATES

SCALE OF MILES

0 100 200 300 400

Capitals of Countries ⊛ *Capitals of Divisions* ✱

Size of Type indicates relative importance of places

A 125° B 120° C 115° D 110° E 105° F 100° G

120° C 115° D 110° E 105° F 100° Longitude G

95° H 90° J 85° K 80° L 75° M 70° N 65°
50°
45°
40°
35°
30°
25°
2
3
4
5
6
7
James Bay
Albany R.
Lake Winnipeg
Lake of the Woods
Rainy Lake
Lake Nipigon
Moose R.
L. Abitibi
L. St. John
Saguenay R.
Quebec
Mt. Katahdin
Newcastle
Chatham
St. John
Caribou
NEW BRUNSWICK
Fredericton
St. John
Penobscot R.
St. Croix R.
Calais
Eastport
Bangor
Augusta
MT. DESERT I.
MAINE
Portland
Biddeford
Portsmouth
Concord
NEW HAMPSHIRE
Lowell
Lawrence
Boston
Worcester
Springfield
Providence
FALL RIVER
Newport
NANTUCKET I.
MARTHAS VINEYARD
C. Cod
CONN.
New Haven
Bridgeport
New London
LONG I.
New York
Newark
Jersey City
Philadelphia
Atlantic City
Baltimore
Dover
C. May
Delaware B.
Three Rivers
St. Lawrence R.
St. Hyacinthe
Sherbrooke
Valleyfield
Montreal
Ottawa
Hull
Ottawa R.
Cobalt
North Bay
L. Nipissing
St. Marys R.
St. Canal
Sault Ste. Marie
MANITOULIN I.
Georgian Bay
LAKE HURON
LAKE SUPERIOR
Port Arthur
Fort William
Pigeon R.
ISLE ROYALE
Kenora
Winnipeg
Red L.
Virginia
Mississippi R.
Itasca L.
Moorhead
Duluth
Superior
Ashland
Ironwood
Houghton
Calumet
Marquette
Ishpeming
Mille Lacs
Fergus Falls
Brainerd
Little Falls
St. Cloud
Crookston
International Falls
Minneapolis
St. Paul
Stillwater
Chippewa R.
Red R.
Minnesota R.
Mankato
Winona
Rochester
Faribault
Austin
Sioux Falls
Yankton
Sioux City
Mason City
Ft. Dodge
Marshalltown
Waterloo
Dubuque
Cedar Rapids
Iowa City
Des Moines
Council Bluffs
Omaha
Fremont
Creston
Ottumwa
Burlington
Keokuk
Fort Madison
Muscatine
Davenport
Clinton
Freeport
Rockford
Beloit
Janesville
Madison
Racine
Kenosha
Milwaukee
Wisconsin R.
Green Bay
Appleton
Oshkosh
Fond du Lac
Sheboygan
La Crosse
Wausau
Marinette
Menominee
Escanaba
Green B.
Manistique
Traverse City
Cheboygan
Alpena
Str. of Mackinac
LAKE MICHIGAN
Grand Rapids
Muskegon
Saginaw B.
Bay City
Saginaw
Flint
Port Huron
Sarnia
Owen Sound
Peterborough
Toronto
Guelph
Hamilton
N. Tonawanda
Niagara Falls
St. Thomas
LAKE ONTARIO
Kingston
Belleville
Oswego
Rochester
Syracuse
Utica
Albany
Watertown
Ogdensburg
Plattsburg
Champlain
Rouses Point
ADIRONDACK MTS.
Schenectady
Amsterdam
Rome
Auburn
Ithaca
Hornell
Binghamton
CATSKILL MTS.
Hudson
Poughkeepsie
Kingston
Newburgh
Middletown
Port Jervis
Scranton
Wilkes-Barre
Williamsport
Bradford
Olean
Jamestown
Dunkirk
Buffalo
Niagara R.
LAKE ERIE
Erie
Ashtabula
Meadville
Oil City
Cleveland
Akron
Youngstown
Beaver Falls
Pittsburgh
Johnstown
McKeesport
Harrisburg
Lancaster
Reading
Pottsville
Easton
Trenton
Camden
Wilmington
Chester
Hagerstown
Cumberland
Connellsville
Wheeling
Detroit
Pontiac
Lansing
Jackson
Ann Arbor
Adrian
Toledo
Sandusky
Elyria
Lorain
Chatham
St. Clair R.
Port Huron
Sarnia
Kalamazoo
Battle Creek
Kenosha
Waukegan
Evanston
Michigan City
Gary
South Bend
Elkhart
Goshen
Fort Wayne
Hammond
Joliet
Aurora
Elgin
Chicago
Rock Id.
Moline
Galesburg
Kewanee
Peoria
Bloomington
Streator
Lasalle
Ottawa
Kankakee
Logansport
Lima
Mansfield
Marion
Tiffin
Findlay
Akron
Canton
Zanesville
Columbus
Springfield
Dayton
Middletown
Chillicothe
Cincinnati
Portsmouth
Ironton
Parkersburg
Fairmont
Grafton
Marietta
Athens
Charleston
Huntington
Mayville
Newport
Covington
Richmond
Anderson
Indianapolis
Terre Haute
Lafayette
Danville
Champaign
Decatur
Springfield
Jacksonville
Quincy
Hannibal
Moberly
Louisiana
Mexico
Alton
St. Louis
St. Charles
Belleville
Vincennes
Jeffersonville
Frenchtick
New Albany
Louisville
Frankfort
Lexington
Winchester
Owensboro
Evansville
Henderson
Kansas City
Leavenworth
Atchison
St. Joseph
Topeka
Lawrence
Sedalia
Jefferson City
Osage R.
Kansas R.
Missouri R.
Grand R.
Illinois R.
Wabash R.
Ohio R.
Big Sandy R.
Kanawha R.
Green R.
Cumberland R.
Tennessee R.
Cumberland Mts.
Allegheny Mts.
Blue Ridge Mts.
Ozark Mts.
Boston Mts.
White R.
St. Francis R.
Arkansas R.
Little Rock
Hot Springs
Fort Smith
Muskogee
Tulsa
Coffeyville
Vinita
Joplin
Springfield
Eureka Sprs.
Fayetteville
Paragould
Jonesboro
Poplar Bluff
Cape Girardeau
Cairo
Pittsburg
Carthage
Webb City
Independence
Kansas City
Nashville
Murfreesboro
Jackson
Memphis
Corinth
Florence
Huntsville
Chattanooga
Clarksville
Columbia
Knoxville
Johnson City
Bristol
Asheville
Charlotte
Salisbury
Winston-Salem
High Point
Greensboro
Durham
Raleigh
Goldsboro
Newbern
Beaufort
Wilmington
Florence
Sumter
Columbia
Greenville
Spartanburg
Greenwood
Augusta
Athens
Atlanta
Gainesville
Rome
Marietta
Gadsden
Anniston
Talladega
Birmingham
Bessemer
Tuscaloosa
West Pt.
Columbus
Aberdeen
Corinth
Helena
Pine Bluff
Camden
Texarkana
Shreveport
Marshall
Tyler
Palestine
Waxahachie
Dallas
Denison
Sherman
Paris
Greenville
Oil City
Lake Providence
Monroe
Vicksburg
Jackson
Meridian
Yazoo City
Greenville
Natchez
Hattiesburg
Mobile
Pensacola
Baton Rouge
Lake Charles
Beaumont
Houston
Port Arthur
Galveston
New Orleans
Mouths of the Mississippi
Alexandria
Selma
Montgomery
Eufaula
Opelika
Columbus
Macon
LaGrange
Augusta
Athens
Greenville
Spartanburg
Greenwood
Columbia
Aiken
Orangeburg
Georgetown
Charleston
Beaufort
Savannah
Brunswick
Fernandina
St. Johns R.
Jacksonville
St. Augustine
Palatka
Ormond
Daytona
Ocala
Gainesville
Cedar Keys
Tallahassee
Lake City
Thomasville
Valdosta
Waycross
Dothan
Columbia
Florence
Wilmington
Fayetteville
Goldsboro
Newbern
Beaufort
C. Lookout
C. Fear
C. Hatteras
Pamlico Sd.
Albemarle Sd.
Roanoke R.
Roanoke
Petersburg
Richmond
Lynchburg
Danville
Newport News
Norfolk
Portsmouth
Weldon
Elizabeth City
Greensboro
Durham
Raleigh
Chesapeake
Cape Charles
C. Charles
C. Henry
Alexandria
Fredericksburg
Staunton
Charlottesville
Winchester
Hagerstown
Cumberland
Connellsville
Wheeling
Parkersburg
Fairmont
Grafton
Zanesville
Columbus
Marion
Lima
Findlay
Tiffin
Sandusky
Toledo
Elyria
Akron
Youngstown
Beaver Falls
Pittsburgh
Johnstown
McKeesport
Harrisburg
Lancaster
Reading
Pottsville
Easton
Trenton
Camden
Wilmington
Chester
Philadelphia
Atlantic City
Baltimore
Dover
C. May
Delaware B.
Chesapeake B.
Potomac R.
Shenandoah R.
Kanawha R.
Big Sandy R.
Ohio R.
Cumberland Mts.
Allegheny Mts.
Blue Ridge Mts.
Tennessee R.
Green R.
Cumberland R.
Kentucky R.
Licking R.
Scioto R.
Muskingum R.
Hocking R.
Miami R.
Wabash R.
Illinois R.
Kankakee R.
Fox R.
Rock R.
Iowa R.
Des Moines R.
Missouri R.
Osage R.
Kansas R.
Grand R.
Platte R.
Nodaway R.
Nishnabotna R.
Little Sioux R.
Big Sioux R.
Minnesota R.
Red R.
Mississippi R.
Ohio R.
Arkansas R.
Red R.
Ouachita R.
Tombigbee R.
Alabama R.
Pearl R.
Chattahoochee R.
Flint R.
Ocmulgee R.
Oconee R.
Altamaha R.
Savannah R.
Santee R.
Pee Dee R.
Cape Fear R.
Neuse R.
Roanoke R.
James R.
Potomac R.
Chesapeake B.
Delaware B.
Apalachicola
Apalachee B.
Tampa B.
Indian R.
Lake Okeechobee
The Everglades
Fort Myers
Florida Bay
Cape Romano
C. St. George
C. Sable
Key West
DRY TORTUGAS
Florida Keys
Knights Key Dock
Florida Strait
Havana
Matanzas
Cuba
Jupiter
Palm Beach
West Palm Beach
Fort Pierce
Titusville
C. Canaveral
Brooksville
Tampa
Cedar Keys
C. San Blas
C. St. George
Apalachicola
Gainesville
Ocala
Daytona
Ormond
Palatka
St. Augustine
Jacksonville
St. Johns R.
Fernandina
Brunswick
Savannah
Beaufort
Charleston
Georgetown
Myrtle Beach
Florence
Sumter
Columbia
Aiken
Orangeburg
Santee R.
Pee Dee R.
Cape Fear R.
Neuse R.
Roanoke R.
James R.
Potomac R.
Chesapeake B.
Delaware B.
Atlantic City
Cape May
Dover
Baltimore
Chester
Wilmington
Camden
Trenton
Easton
Reading
Lancaster
Harrisburg
Hagerstown
Chambersburg

A 30 B 20 C 10 D 0 E 10 F 20
60
50
40
30
Strait of Denmark
North C.
Breithi F.
Hunafloi Fiord
Faxa F.
Reikiavik
C. Reikianes
ICELAND
Akureyri
Thistill F.
C. Langanes
Vatna Jokull
M. Hekla
Diuplvogr
JAN MAYEN
ARCTIC CIRCLE
FAROE IS. (Den.)
SHETLAND IS.
ORKNEY IS.
HEBRIDES
NORTH SEA
NORWEGIAN SEA
BRITISH ISLES
IRISH FREE STATE
Londonderry
Glasgow
Belfast
Liverpool
Dublin
Cork
Queenstown
Limerick
Galway
Sligo
ULSTER
Irish Sea
Moray Firth
Inverness
Aberdeen
Dundee
Firth of Forth
Edinburgh
Carlisle
Newcastle
Hull
Sheffield
Manchester
Birmingham
LONDON
Amsterdam
Hague
Rotterdam
Portsmouth
Southampton
ENGLISH CHANNEL
Brussels
BELGIUM
Lille
Boulogne
Calais
Dover
Ostend
Antwerp
Ghent
Liege
NETHERLANDS
Bremen
Hamburg
Altona
Haboyer
Brunswick
Magdeburg
Cassel
Elberfeld
Dortmund
Cologne
Frankfort
Mainz
Mannheim
Karlsruhe
Stuttgart
Augsburg
Munich
Innsbruck
Salzburg
Linz
Passau
Regensburg
Nuremburg
Erfurt
Leipzig
Dresden
BERLIN
Kalisz
Lodz
Breslau
Posen
Plock
Radom
POLAND
PRAGUE
CZECHOSLOVAKIA
Pressburg
Brunn
Budweis
Krakow
Kaschau
VIENNA
AUSTRIA
BUDAPEST
HUNGARY
Grätz
Szegedin
Arad
Debreczin
Agram
Fünfkirchen
Lemberg
Tarnopol
Czernowitz
Kolomea
Stanislau
Przemysl
Lemberg
Zamosc
Brest
Pinsk
Kovel
Rovno
Zhitomir
Kiev
Tarnow
Rzeszow
Sanok
Stryj
Drohobycz
Boryslaw
Stanislau
Kolomea
Czernowitz
Jassy
Kishinev
Odessa
Nikolaev
Kherson
Simferopol
Sevastopol
Yalta
Feodosia
Kerch
Taganrog
Rostov
Stalino
Voroshilovgrad
Kharkov
Poltava
Kremenchug
Dnepropetrovsk
Zaporozhye
Melitopol
Berdyansk
Mariupol
Stalino
Taganrog
Rostov
Novocherkassk
Stavropol
Armavir
Krasnodar
Maikop
Tuapse
Sochi
Sukhumi
Batum
Kutais
Tiflis
Baku
Grozny
Makhachkala
Derbent
Astrakhan
Guryev
Orsk
Aktyubinsk
Uralsk
Saratov
Kuibyshev
Ufa
Chelyabinsk
Sverdlovsk
Perm
Kirov
Gorki
Moscow
Tula
Orel
Kursk
Belgorod
Voronezh
Penza
Ulyanovsk
Kazan
Molotov
Sverdlovsk
Chelyabinsk
Magnitogorsk
Orenburg
Chkalov
Ufa
Sterlitamak
Kuibyshev
Saratov
Engels
Uralsk
Aktyubinsk
Guryev
Orsk
Tashkent
Frunze
Alma-Ata
Semipalatinsk
Barnaul
Novosibirsk
Omsk
Tyumen
Sverdlovsk
Molotov

EUROPE

ENGLISH STATUTE MILES
0 100 200 300 400 500

KILOMETERS
0 100 200 300 400 500 600 700 800

G 30 H 40 J 50 K 60 L 70 M 80 N

Greenwich

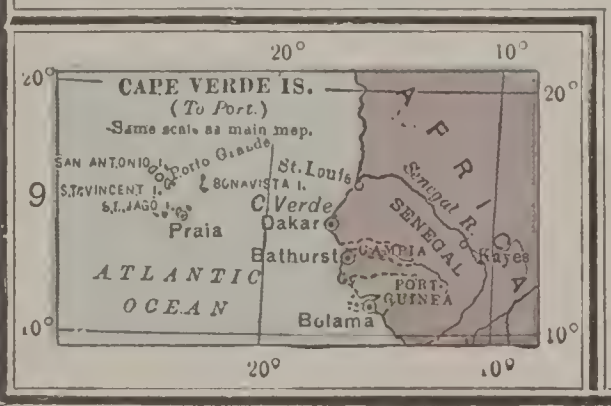
POLITICAL MAP OF AFRICA

SCALE OF MILES

0 200 400 600 800 1000 1200

EUROPEAN POSSESSIONS

- Great Britain
- Belgium
- France
- Italy
- Spain
- Portugal



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POLITICAL MAP OF ASIA

SCALE OF MILES

0 200 400 800 1200 1600

Hammond's Political Map of Asia
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20° C 40° D 60° Longitude E East 80° from F Greenwich 100° G 120° H 140° J

POLITICAL MAP OF AUSTRALASIA

SCALE OF MILES

0 100 200 300 400 500 600 700 800 900 1000

Hammond's Political Map of Australasia
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GEOGRAPHY

ITS SCOPE—METHODS OF STUDY—WHERE TO GET INFORMATION —INDUSTRIES OUTLINED AND ILLUSTRATED

Strictly speaking, Geography deals with the earth only as the home of man. But, as many influences have taken part (and are still at work) in fitting the earth for man's residence, a full understanding of the subject cannot be had without a study of these various forces. Climate, for example, is much affected by the earth's motions and by forces set to work by those motions. The face of the earth is constantly changing under nature's operations and under man's manipulation. New areas are being brought under cultivation; new fruits, cereals, and market garden crops are coming into existence; new forces are being harnessed by man—and so, in our presentation of this subject, we have tried to keep in mind not alone the technical phase of geography, but that broad conception which an educated person should have of the earth on which he lives.

COMMERCIAL GEOGRAPHY.

Though not the most interesting, this is the most practical phase of geographical study. It leads to a knowledge of the world's productions, of the industries that engage man's thought and effort, of the exchange of commodities, etc. The Phoenicians were the first traders of history, but their field of effort was quite small. Now all parts of the earth are reached by ships, railways, and other means of transportation, and every country and every climate are made to serve man's needs. Outlines for the study of industry and commerce are given elsewhere. Make a careful study of the Product Maps illustrating these outlines:

Forestry.
Paper making (charts).
Fishing.
Mining (article and charts).
Coal and Iron.
Grain Harvesting (charts).
Irrigation and Drainage.
Transportation (article and charts).
Standard Time (charts).

PHYSICAL GEOGRAPHY.

The face of the earth is constantly modified by natural forces. The atmosphere above it, the winds that play over land and water, the moving waters, the forces hidden in the bowels of the earth, powers brought into play by man's delving or boring into the earth, and chemical action—all have a part in these changes. The outlines and charts given at the end of this article open the way for a thorough study of these forces.

The Seasons (chart).
Meteorology.
Earthquakes and Volcanoes.
The Ocean.
Winds (charts).
Nile River.
Springs and Artesian Wells.
Lakes.
Erosion.

It should not be forgotten that many of these articles give valuable information and aid in the study of all phases of the subject of geography.

COMMERCIAL GEOGRAPHY

POSITION AND DIRECTION

1. Locate the school building in the school yard ("in the center," "on the side," etc.).

2. Locate the teacher's desk; the stove.

3. Lead the pupil thus to see the necessity for some means of describing the location and direction of things, whether for his own use or in telling others.

4. Now (always giving this lesson in the morning to young pupils) have the pupils face toward where the sun rises. Give the name "East." Let them tell that the sun sets behind them and that this is "West." Have them extend their arms, index fingers pointing. Show that the right finger points "South"; the left, "North."

5. Now go back to the other lessons and locate the objects named and a few other prominent objects as "East side," "North end," etc.

6. Make a drawing (do not call it a *map* at first) on the board, of the school yard, locating the various buildings, the well, the gate. Drill the pupils on this by "North," "East," "South," "West."

7. When they are familiar with this drawing, tell them you wish them to make one like it, locating the objects by rectangles, circles, dots, etc.

8. Below the drawing have them locate and give directions from the schoolhouse.

9. When they have the idea, tell them that such a drawing is called a *map*. Have ready a map of the school room. Copy it on the board, drawn to a scale.

10. Now have the pupils: (a) Locate a few prominent objects; (b) Place them on the map on the board *under the pupil's dictation.* (c) When the locations are agreed upon, then, below, state directions—again *under the pupil's dictation;* when finished and all are satisfied the map is right, have the pupils copy it. If necessary, teach "Northeast," "Southeast," etc. Then place objects in different parts of the room. Drill on locations and directions.

Have each pupil make a *map* of his home, locating house, garden, barn, etc. Go slowly.

SCHOOL DISTRICT

Make a map showing roads, farm houses, bridges, groves, and a few interesting places of that sort. This will probably take several days and must be worked up very carefully. The map must be drawn to scale, and public highways may either be colored or drawn with two lines to distinguish them from section lines and farm boundaries. Number the sections. After the pupils have copied the map on paper, select several of the better ones and have the different farms colored, not using the same color on any two adjacent farms. This paves the way for the vari-colored maps soon to be studied. (Never forget to commend both good work, and faithful work even if not so good.)

Make a list of products, being careful to distinguish between those raised for home use and those actually shipped out. That study may be a general class exercise for the district, or individual pupils may be required to make a similar study of the particular farm on which he lives.

So far, the district has been treated with regard to itself only. The following outline has been arranged with reference to surrounding districts, making a little more intensive study. Teacher should sketch on the blackboard a map of the township, showing the home district somewhat in detail—perhaps roads and schoolhouse will be enough. Show how school districts are numbered and learn the number of your own. Write names of contiguous districts on the map. By incident, illustration, or question always keep the pupils impressed with the idea that these lessons have a purpose. They may think the lessons are just to make work for them.

1. Location of School District.
   a. Position in township.
   b. Bounding districts.
2. Area.
   a. Size of township.
   b. Number of districts (refer to map).
   c. Size of each district.
3. Population.
   a. Take census by calling on the pupils for the facts.
   b. Density (number to square mile).
   c. School attendance (percentage).
4. Surface. (Always lead pupils to discover and state facts if they can.)
5. Climate. Explain. Lead pupils to understand.
6. Natural Resources. Soil, mineral wealth, forests, waterpower, etc.
7. Industries. Mining, Agriculture, manufacturing, lumbering, quarrying, commerce, dairying, fishing, fruit raising, etc. Bring out which give employment in the region covered by the map.
8. Products.
   a. Agricultural (including orchards or vineyards).
   b. Mineral (kind, purpose, value).
   c. Animal (including milk, cheese, birds, etc.).
   d. Timber (lumber, furniture, windbreaks, drainage).
   e. Which are marketable? Why.
9. Commerce.
   a. Imports (or things brought in).
   b. Exports (or things sold out).
   c. What exports are domestic? Which are foreign? (Explain.)
10. Government. School officers. How many, when elected, by whom, term of service, pay.
11. Taxes.
    a. Assessed valuation. (Explain.)
    b. Amount of levy. (Explain.)
    c. Other sources of school money.
    d. What the school costs.
    e. Is this the only cost to the parent?
12. History. Has any important event occurred in the township?

Read articles in this work on CIVICS, DRAWING, CENSUS, CLIMATE, SOIL, COMMERCE, U. S. HISTORY, DRY FARMING, CHEESE, BUTTER, etc.

TOWNSHIP

Show map of the county indicating township.

1. Location.
   a. Position in county with regard to survey.
   b. Bounding counties. (Show by a map of the state.)
2. Area. Are all townships the same size?
3. Population. Total; density. (See CENSUS.)
4. Surface. Hills, streams, ponds, timber land, etc.
5. Climate. Distinguish between *weather* and *climate*.
6. Natural Resources. Explain. Have pupils enumerate. Hindrances.
7. Industries. See above. Any manufactories, kilns, quarries?
8. Products. Give a talk on domestic and foreign imports and exports.
9. Commerce and transportation. Explain. Lead pupils to express themselves.
10. Government.
    a. Offices. Why created?
    b. Villages. How governed?
    c. School districts. Plan. Why made?
11. History. Influence of local on state history—political, economic, etc.

See General Index, under heads AGRICULTURE, BIRDS, CARBON, CLOTHING, DRUGS, FUR, INSECTS, NAVIGATION, RAILWAY, etc.

CITY

1. Location. What usually determines the location of a city?
2. Area. How is this fixed? How changed?
3. Population. Home or foreign? Why?
4. Natural advantages. Waterpower, navigation, character of surrounding country, railway center, commercial center.

5. Industries. Character. Enumerate.
   a. Imports and exports (amount, articles, value).
   b. Where do these come from?
7. Transportation. Railroads, etc.
8. Government.
   a. Charter. How obtained? Contents?
   b. Departments.
      (1) Executive. Mayor. Who, when elected, term of office, pay, duties, assistants.
      (2) Legislative. Board of aldermen, number, how and when elected, duties.
      (3) Judicial. Local, general, purpose.
   c. Public service systems. Water, Heat, Light, Fire, Health, Police, Bureau of Public Works, Civil Service Commissioners, Board of Local Improvements, Election Commissioners, Board of Education.

Read articles in this work on CIVICS, POPULATION, BUSINESS ECONOMICS, MANUFACTURES (under the different countries described), Cities (See General Index), TARIFF, TRADE UNION, CANAL, TRANSPORTATION, HEATING AND VENTILATING, SANITARY SCIENCE, SEWAGE, AUTOMOBILES, TEXTILES (see Index), CHICAGO, HIGH SCHOOL.

STATE

Show map of your own state to illustrate outline.

1. Origin of name; of civil formation.
2. Location.
   a. Latitude and longitude.
   b. Position in United States.
   c. Bounding states.
   d. Natural boundaries.
3. Size.
   a. Greatest or average width.
   b. Greatest length.
   c. Area and rank in size.
   d. General shape. Due to what?
4. Physical Features.
   a. Surface. Elevations, lowlands, valleys, plains, watersheds.
   b. Drainage. Rivers, lakes, basins.
   c. Coast. Direction, extent, projections, indentations, harbors.
   d. Causes of these features.
5. Climate.
   a. Temperature. Cause, highest, lowest, average.
   b. Winds. Direction of prevailing winds, why, when.
   c. Rainfall. Amount, time, causes.
6. Agriculture. Consider under this head grains, fruits, root crops, etc.
7. Mining. Kinds of mines, number employed, value, etc.
8. Lumbering. Kinds of timber found, the forestry question.
9. Manufacturing.
   a. Extent. Local raw materials used.
   b. Factory centers, where located and why.
10. Fishing. How done. Effect on supply.
11. Commerce and transportation.
   a. Advantage to the state.
   b. Chief transportation routes: natural (navigable rivers, lakes); artificial (railways—steam, electric; roads).
   c. Exports and imports. Due to what? Source? Amount?
12. Chief cities. Causes of their location and growth.
13. Education.
   a. Common schools. Number, purpose.
   b. Colleges and universities (state, private).
   c. Technical schools.
14. State Institutions. For the insane, deaf and dumb, blind, poor.
15. History.
   a. First settlement.
   b. Early development.
   c. When admitted to the Union.
   d. Historical events and places, statesmen, musicians, orators, physicians, warriors, inventors, educators, authors, writers, jurists.

STATE STUDY

As one illustration of how a state may be studied, see the outline below for the study of State of Michigan. Supplement or change this model according to the outlines above. Avoid routine or non-thinking work.

MODEL FOR STATE STUDY—MICHIGAN

HISTORY.

1. Places of first settlement: why did the first inhabitants locate there? How did the state get its name?
2. Periods of French and English settlement, and final transfer to the United States.
3. Pontiac's Conspiracy.
4. As a part of the Northwest Territory.
5. Establishment as a territory and as a state.
6. The Toledo War.

POSITION AND EXTENT.

1. Among the Great Lakes; peninsular character.
2. Area and dimensions; shape and its cause.

FLORA AND FAUNA.

Explain. Show which are useful to man.

PHYSICAL FEATURES.

1. Character of surface.
   a. Relief.
   b. Agencies shaping surface (natural and artificial).
   c. Kind of material.
2. Soil: kinds, origin, distribution.
3. Water resources.
   a. Principal streams with their size and navigability.
   b. Lakes: interior, Great Lakes.
   c. Ground water, springs, wells.
   d. Mineral waters, their location and uses.
4. Climate.
   a. Distribution of rainfall over the state by seasons.
   b. Distribution of temperature over the state by seasons.
   c. Factors influencing climate.
      (1) Latitude.
      (2) Continental interior.
      (3) Westerly winds and cyclonic storms.
      (4) Great Lakes.
      (5) Forest destruction.

INDUSTRIES.

1. Agriculture.
   a. Grains: kinds, distribution, importance.
   b. Fruit.
      (1) Kinds, distribution, importance.
      (2) Factors determining distribution.
   c. Beet sugar; distribution, production compared with other states.
   d. Market gardening; distribution.
   e. Live stock; principal kinds, etc.
2. Lumbering.
   a. Principal kinds of trees and their distribution.
   b. Rise and decline of the industry; why?
   c. Production compared with other states.
   d. Relative importance at present.
   e. Relation to forest reservation movement.
3. Mining.
   a. Iron.
      (1) Principal ranges.
      (2) Kind and quality of ore.
      (3) Quantity available and length of time it will probably last.
      (4) Production compared with other states.
   b. Copper.
      (1) Location of district.
      (2) Quality and production compared with other states.
   c. Coal.
      (1) Location of district.
      (2) Kind, quality, amount available, production.
   d. Salt; location of wells, quality, production.
   e. Value compared with other industries.
4. Manufactures.
   a. Leading industries and what factors have contributed toward their development.

b. Importance compared with those of other states.

5. Fisheries.
   a. Principal fish, how and when caŭght.
   b. Location of fishing grounds; their relative value.

TRANSPORTATION AND COMMERCE.

1. Railroads.
   a. Factors influencing distribution of railroad web.
   b. Mileage compared with other states.
2. Rivers and canals; importance.
3. Great Lakes; principal routes and ports; importance to the state and to the nation.
4. Principal exports and imports.

DISTRIBUTION OF POPULATION.

1. In the Upper Peninsula; factors determining distribution.
2. In the Lower Peninsula; factors determining distribution.
3. Rural and urban; cause of movement to the cities.
4. Leading cities; their location, chief industries, factors of growth.

GOVERNMENT.

1. Executive: governor, state officers, assistants.
2. Legislative: senate and house of representatives.
3. Judicial: supreme and other courts.
4. Local: county, city, town and township officials, etc.

HEALTH RESORTS.

1. Character.
2. Where located.

EDUCATION.

1. Higher Education.
   University, normal schools, agricultural and mechanical college, school of mines, high schools, denominational institutions.
2. Common schools.
3. Charitable and reform schools.

See, for special and fuller information, articles in this work on UNITED STATES HISTORY, LATITUDE, LONGITUDE, STATE MAPS, STATE STATISTICS, LAKES (General Index), MINING, LUMBERING, FISHERY, BUSINESS ECONOMICS, COMMERCE, EDUCATION, AMERICAN LITERATURE, UNIVERSITY, NORMAL SCHOOLS, the facts about the several states given with each state, the facts about leading cities, etc.

OTHER SUGGESTIONS FOR INDIVIDUAL WORK

1. Make a product map of each state on the plan of Missouri and Minnesota. Have pupils make similar maps and then get pictures from magazines or catalogs and paste them on the maps, or draw with pencil if pictures cannot be obtained. This exercise will fix the products indelibly and will do away with the evil results of trying to memorize what somebody else has worked out.

2. Trace in detail some of the more important industries, going beyond the confines of the particular state studies. For example, Maine supplies a large amount of bark used in tanning leather. Make a study of Leather and all related subjects. Outlines will be found in *"Education."* Where the subject is not outlined make your own study plan. Where the industries are agricultural take something like this: (a) Trace Wheat from the time it is planted till it comes to your table in wheat cakes. (b) Study Corn from its planting to the factory products.

3. Study Lumber with all its connected subjects. That will give the pupil a working knowledge of forest conditions the world over, and provide a good connecting link for the study of foreign countries.

4. Study Irrigation, not only in the western states today, but ancient and modern irrigation in Egypt and India. Study also Reclamation.

5. With the Study of Cotton, include a study of the manufacture of thread in England, also in the United States.

6. Let Salmon Fisheries (Puget Sound) open the way to the great fishing industries of the world.

7. The study of Gold (in the Black Hills) will introduce the gold fields of the world along the various methods used in mining and with explanations of the method adapted to the necessities of each particular place.

8. Cattle Raising in the Southwest may be expanded into a comparative study of different breeds of cattle, their uses, where found, etc.

The progressive teacher will select from time to time the subjects best suited to each pupil, and will teach pupils to outline their own subjects rather than to depend on others, for the same reason that the mental discipline of working problems is lost if the teacher does the work for them.

9. Have pupils make collections of pictures illustrating industries and places of interest. They can be cut from magazines or from whatever source is at hand, and preserved for the school in an album or in any other convenient manner.

See suggestive maps of Missouri and Minnesota opposite, also product maps of other states under Illinois, Georgia, Texas, Ohio, New York, Washington and Oregon, etc.; also see charts of certain administrations (U. S. HISTORY). Read articles on LEATHER, AGRICULTURE (General Index), LUMBER, HOME ECONOMICS, IRRIGATION, DRAINAGE, CORN, COTTON, ELI WHITNEY, EGYPT, INDIA, THREAD, SALMON FISHERY, FISHES (General Index), GOLD, GOLD LEAF, MONEY, CATTLE, ANIMALS (General Index), BEEF, BUSINESS ECONOMICS, WEAVING, SPINNING, SILK, ARCTIC REGIONS, BRIDGES (General Index), NATURAL BRIDGES, PARKS, CLIFF DWELLERS, CLOTHING, etc.

COUNTRY OR NATION

1. Name, origin of.
2. Location.
   a. Latitude and longitude.
   b. Position in continent.
   c. Countries bordering.
3. Extent and area.
   a. Greatest length and width.
   b. Number square miles.
   c. Tillable land; land not worth tilling.
4. Physical Features.
   a. Surface (see relief map of). Elevations, depressions, table lands, valleys, slopes.
   b. Drainage. River systems and basins, lakes and watersheds.
   c. Coastal features. Outline, regular or irregular. Extent in miles. Harbors, deltas, estuaries.
   d. Natural curiosities. Caves, falls, glaciers, geysers, etc.
5. Climate.
   a. Temperature (zone), winter, summer.
   b. Winds, direction, cause.
   c. Rainfall in each section.
   d. Elevations and their cause and effect.
6. Life.
   a. Vegetation in forests, plains, desert, swamps.
   b. What relation to man?
7. Animals.
   a. Land, water, air.
   b. Wild, domestic.
   c. How geographically important?
8. Man.
   a. Aborigines.
   b. Later immigrants.
   c. What relation to physical features, climate, plant and animal life? (See above.)
9. Minerals.
   a. Metals, ores, precious stones, building stones.
   b. How do these affect commerce?
10. Industries.
    a. Agricultural. Grains and other field products, hay, orchards, etc. Live stock and animal industry, dairying.
    b. Fishing.
    c. Mining.
    d. Manufacturing.
    e. How do these affect commerce?
    f. How do they affect the country's development?
11. Products.
    a. Plant. Enumerate both seed and plants.
    b. Animal. Why valuable to man?
    c. Mineral. Kinds and uses.
    d. Manufactured. Out of what made?
12. Transportation.
    a. Natural. Rivers, lakes, seas, mountain passes, roadways.
    b. Artificial. Canals, railways, roads.

13. Commerce.
    a. Domestic. Local, intrastate, interstate.
    b. Foreign. Imports, exports.
    c. Use of à tariff.
14. Population.
    a. Number, increasing or decreasing; why.
    b. Density, where greatest; why.
    c. Trend; why.
    d. Migration, causes, where.
15. Cities. Study reason for location of each.
16. Government.
    a. Form; present ruler.
    b. Departments. Executive; Legislative; Judicial.
    c. Foreign relations. Trade, etc.
17. Education.
    a. Free or public schools.
    b. Church or parochial schools.
    c. Colleges and universities.
    d. Reform Schools.
    e. Normal Schools.
    f. Private institutions.
18. Culture.
    a. Literature, history, form, noted writers.
    b. Art. Painting, development, purpose, character, influence; sculpture, material, kinds, characteristics; music, instrumental, vocal, leading composers.
19. History. Origin, development, causes of changes.
20. Noted persons or places.

Read the articles on each country: Coal, Hay, Cave, Glacier, Geyser, Natural Bridges, Feathers, Fish, Fur, Seal, Duck, Duckbill, Opossum, United States History, Business Economics, Grape, Vulture, Bird, Orchard, Orchids, Meteorites, Mineralogy, Mining, Statistics, Starch, Sugar, Sugar Cane, Beet, Maple, Plants (General Index), Wind, Topography (under several countries), Tariff, Civics, Geography, Literature (of each country), Education, Painting, Sculpture, Music (General Index), etc.

CONTINENT

1. Location, area, general shape.
2. Contour, projections and indentations, islands.
3. Surface.
    a. Main axis, secondary axis.
    b. Slopes, plains, plateaus, basins.
    c. Molding influences (rain, volcano, wind).
4. Drainage. River systems, lakes, swamps, watersheds.
5. Natural Curiosities. Caves, falls, glaciers, etc.
6. Climate.
    a. Hot, temperate, and cold belts. Causes.
    b. Prevailing winds. Due to what? When?
    c. Rainfall, dependent on surface and winds.
7. Life.
    a. Vegetation, forests, plains, deserts, swamps.
    b. Animals, land, water, air.
    c. Inhabitants. Aborigines; later immigrants; change in character.
8. Minerals.
    a. Metals, use, extent.
    b. Precious stones, kind, where found.
    c. Ores, form, how obtained.
    d. Building stones, how distinguished.
    e. Oils, kinds, how refined, by-products.
    f. Fuels, coal, wood, oil, etc.
9. Industries.
    a. Crude products.
    b. Manufactures.
10. Commerce.
    a. Chief routes.
    b. Natural highways. Waterways, plains, roads, mountain passes.
    c. Artificial highways. Canals, railroads, aviation routes.
    d. Effect on location of cities.
11. Largest cities.
12. Political divisions.
13. Physical divisions.

The teacher or reader should group these references under each head on a separate sheet. Often an article is valuable under several heads. Read it under each

head. You cannot have too much general information. Look at a subject from several standpoints and you will have a much broader conception of it. Many articles will be found helpful besides those enumerated. Always consult the General Index.

Articles helpful here are those on each country in the body of the work: ATLANTIC, PACIFIC, and other oceans; ISLAND, ISLANDS (General Index); VOLCANO, PHILIPPINE ISLANDS, WEST INDIES, MOUNTAINS (General Index); MAMMOTH CAVE, WEATHER BUREAU, PAMPAS, MONSOON, MONKEY, ANIMALS (General (Index); PETROLEUM, TURPENTINE, TAR, MINERALS (General Index); ROAD, AIRSHIP, WRIGHT BROTHERS, CANAL, PANAMA CANAL, RAILWAY, CITIES (General Index).

STUDY OF THE PRODUCT MAPS

INTERESTING FACTS ABOUT MINNESOTA

1. Minnesota ranks first in the production of wheat, second in barley, fourth in oats, ninth in potatoes, fourth in total amount of cereals, fifth in value of dairy products.

2. It produces more iron than any other state.

3. The first settlement made by Americans was in 1812. Minnesota means in Indian language "Cloudy Water."

4. The region south of Lake Superior is the scene of Longfellow's Poem, *Hiawatha;* the famous "pipestone quarry" is in Pipestone County, in the southwestern part. From this quarry the Great Manitou is said to have commanded that clay be taken to make the universal peace-pipe.

5. Minneapolis is the largest primary wheat market in the world; also the largest all-rail grain market in the world. Practically every sort of manufacture is represented here. Minnehaha (Laughing Water) Falls is within the city limits.

6. One of the finest views in the world is that from Rogers Boulevard in Duluth. The drive is 500 feet above Lake Superior, which gives it a total elevation of 1,100 feet.

7. Duluth has greater vessel tonnage enrolled than any other port on the Great Lakes.

8. Between Duluth and Superior, Wis., conflicting currents have thrown up a sand bar on which has been built a part of the city of Duluth, connected with the city proper by a trolley line. The United States government has built a fine harbor at Duluth, cutting through the bar for entrance and making a walled channel 400 feet wide. Across the channel is built a steel framework which supports a swinging platform carrying the trolley cars across the channel. The trestlework is high enough to permit the largest lake vessels to enter the harbor. (See picture of Duluth in the body of this work.)

9. The St. Paul water supply comes from a series of clear lakes fed by ice-cold natural springs, and from artesian wells. At the Paris Exposition in 1900 St. Paul was awarded a medal for being the "healthiest city in the world."

10. St. Paul is one of the few points for tea inspection in the United States and has a wonderfully large wholesale traffic in tea shipped direct from Japan. New York is the only city surpassing it in the fur trade.

11. The original Indian name of St. Paul was Innijiska, meaning "White Rock."

12. The true source of the Mississippi was long thought to be Lake Itasca. When Schoolcraft headed an expedition up the river and reached that lake he wished to give it a distinctive name, and demanded of his followers a Latin translation of "true head." One whose Latin was limited gave "veritas caput." That being too long, the first and last syllables were dropped, leaving "Itasca." Since then Elk Lake has been found to be the true source.

QUESTIONS ON MINNESOTA

1. Which is farther west, Minneapolis or Little Rock, Ark.?
2. Which is farther north, Minneapolis or Paris, France?
3. Which is farther from the equator, Duluth or Cape Town, Africa?
4. What was the first building erected in Minneapolis?
5. On what grounds can we say that Minnesota is the oldest land in the world?
6. Why is corn not raised in the extreme northerly part of the state?
7. What large animals, formerly plentiful there, are scarcely to be found now?
8. Who were the first white men to see Minnesota?
9. What hindered the settlement of the state in the early 60's?
10. Which has more teachers in the public schools, Minnesota or Illinois?
11. Which set aside more land for public school funds, Minnesota or Illinois?
12. What does "Minnesota" mean? How many names can you find in the United States having "minne" as a part?
13. How does the average cost of schooling for each pupil in Minnesota compare with that of Illinois? California? Texas?
14. How many representatives does Minnesota send to Congress? Nevada? What makes the difference? Compare the areas of the two.
15. In what part of Minnesota is iron found? In what form?
16. Which are the principal lake ports for the shipment of iron? How much ore is shipped out each year? What is its value?
17. Why are Minnesota's lumber interests in danger? What about Forest Reservation in the state? (See article on FORESTS AND FORESTRY.)

INTERESTING FACTS ABOUT MISSOURI

1. Missouri is first in the production of mules and swine.
2. No state has a greater range of mineral products.
3. The first settlement in the state was made at Ste. Genevieve.
4. St. Louis was founded in 1764 by the order of Liguest, who had selected the site the year previous. He named the city in honor of Louis IX of France. This city now produces three-fourths of the manufactured goods of the state. The overland traffic on the Sante Fé trail was the real cause of the growth of St. Louis.
5. Everything required by the trapping, mining, or ranching population of the West was shipped from St. Louis up the Missouri to Independence, and there loaded on wagons or pack mules and transported overland to Santa Fé.
6. From the mouth of the Mississippi River to the head of Jefferson River, one of the sources of the Missouri, is a total length of 4,200 miles, the longest continuous waterway in the world.
7. In flood times the Missouri is one of the most treacherous rivers known. Even those versed in river lore are never able to tell where or when deposits of sand and silt will occur, or be washed away, or when a bank will be cut through and a new channel formed. Several times, notably during the flood of 1903, the river has threatened to cut a new channel at Kansas City. At that time the place in danger of being cut through was about two miles north of the city. Should that ever occur the city will be without a large river.
8. Kansas City, Mo., is connected with Kansas City, Kans., by an inter-city viaduct, a steel and concrete structure spanning the West Bottoms and the Kaw River, that gives a direct line a mile and a quarter long for street cars, wagon traffic, and foot passage where formerly only one round trip could be made by loaded wagons in a day.
9. Owing to the treacherous character of the river at St. Louis, engineers had for many years declared it to be impossible to build a bridge there. It was accomplished, however, in 1867, by Captain Eads, who put down stone supporting

pillars to bed rock, far below the bottom of the river. Read about Captain Eads and his other work along the Mississippi River in the body of this work.

10. Sometimes ice floating down the Mississippi accumulates above the piers of the bridges at St. Louis and, freezing solidly, forms an ice bridge over which loaded wagons can cross. It may remain for weeks.

11. Missouri is one of the leading wine-producing states. It is also famous for its orchard products and as a producer of grain, vegetables, tobacco, cattle, and hogs. Its principal mineral products are coal, lead, and zinc.

QUESTIONS ON MISSOURI

1. What rank among the states, according to size, does Missouri hold? According to population?

2. Which is farther north, Kansas City, Mo., or Washington, D. C.?

3. About how far was Jefferson City from the center of population in the United States in 1910? (See articles on CENTER OF POPULATION and on LONGITUDE AND TIME in the arithmetic study.)

4. What was the Santa Fé trail?

5. What kind of apple is raised most generally in Missouri? Of grape?

6. What can you say of the berry crop? Of the mines of the state?

7. What was Henry Shaw's idea in beginning what is now known as Missouri Botanical Garden? (See SHAW'S GARDEN.) Is it of any practical benefit to the state?

8. What is the state flower of Missouri? Describe it.

NOTES.—The Missouri River will prove a very interesting and profitable study, if the outline for study of a river system is followed. (See study of Nile River.)

Read any books or articles you can find on the subject of the Santa Fé and other western trails, and kindred subjects. It will make the study of the Western states much more interesting, and give a good idea of the cause of the early settlements. Make a list of all the articles you can containing stories of Western adventure. What difference would you find in supplies carried now by an expedition into unknown or sparsely settled territory from those carried by a railroad to Hannibal, Mo.?

ITEMS OF INTEREST ABOUT THE STATE OF WASHINGTON

1. The altitude of Washington varies from sea level to 10,000 feet. That, in connection with the winds from the Pacific Ocean, gives the state a wide variety of rainfall and climate, causing a much diversified vegetation which, in turn, develops many different industries.

2. The Snake River is navigable for more than 150 miles.

3. On Lake Chelan in the Cascade Mountains one can sail for thirty miles between mountains from seven to ten thousand feet high, affording some of the most beautiful views to be had anywhere.

4. Puget Sound, from sixty to one thousand feet deep, and protected from wind on all sides, is one of the greatest natural harbors in the world. Vessels can land almost anywhere along the whole coast line.

5. Washington is rightly called "The Evergreen State," since there are over 40,000 square miles of forests, mostly coniferous.

6. In eastern Washington the soil is formed largely from disintegrated lava, and contains no gravel and little sand. That is ideal soil for wheat and enormous crops are raised every year without fertilization. It is also a section noted for apple and pear orchards.

7. In western Washington there are about 500 creameries and condensed milk factories. What animal industry thrives there?

QUESTIONS ON WASHINGTON

1. How may Washington be divided as to surface? Cause?
2. Compare rainfall in those divisions. Why that difference?
3. What is peculiar about the harvest season of eastern Washington? Does it differ in that respect from your own state?
4. Why is corn not raised in western Washington?
5. For what is the Washington fir particularly in demand?
6. Considering the minerals found in the state, what do you think of the prospect for extensive manufacturing? What manufactured articles would you expect?
7. What was Washington's interest in the "Fifty-four forty or fight" campaign? (Read in your school history of the Oregon Treaty in 1846.)
8. What is shipped from Tacoma to England via Singapore and the Suez Canal? Trace the journey on the map and estimate the number of miles by reference to scale.
9. What natural advantages for commerce has Seattle?
10. In what way has the United States government added to the growth of Seattle?
11. From what source does Spokane derive her electricity for light and power?
12. What noted fish industry in Washington? Tell something about the industry and about the habits of the fish in question.
13. What is the basis of the commerce between western Washington and Alaska?
14. Why are oats and wheat important crops in this state?

ITEMS OF INTEREST ABOUT OREGON?

1. Mount Hood is 11,500 feet high. Compare with Mount Shasta. Where is each located?
2. Many of the mountains of the state are of volcanic origin.
3. Crater Lake in the Cascades occupies the crater of an old volcano. The lake level is 8,000 feet above the sea. It is 10 miles in circumference, and its walls are bluffs rising 2,000 feet. What differences between Crater Lake and Klamath Lake?
4. Gold is the only mineral product mined very extensively.
5. Astoria is the center of the salmon canning industry, which is carried on almost exclusively by the Chinese.
6. The crest of the Cascade Range divides the state into two very different regions so far as vegetation is concerned. West of it the rainfall is very heavy; east, it is very light. The western part is very heavily forested, but few forests are found in the eastern part of the state.
7. Between the Cascade and the Coast ranges fruit raising is the most prominent industry.
8. The first National bank west of the Rocky Mountains was established in Portland in 1865.
9. The Japan current flows along the west coast and this has a very material effect upon the climate and the rainfall of this section of the state.

QUESTIONS AND SUGGESTIONS FOR STUDY OF OREGON

1. Which is farther north, the southern boundary of Oregon or the northern boundary of Pennsylvania?
2. Why is the rainfall in the south-central part only about 6 inches, while on the coast it is 85 to 90 inches? What effect does that have on vegetation?
3. Which is the most valuable kind of tree in Oregon? Why?
4. What is done with most of the wheat raised?
5. What did John Jacob Astor have to do with the early settlement of Oregon? Did the Lewis and Clark Expedition have anything to do with it?
6. Compare the salary of Oregon's governor with that of your own state governor.

7. Compare the railway mileage with that of Washington.
8. Make a study of Columbia River according to outline of Nile River.
9. How far has the estuary of the Columbia been improved for navigation? (See article on COLUMBIA; also read article on JETTIES.)
10. What improvements are being made in the Columbia?
11. What makes Portland such an important commercial center?
12. Where does Portland get her supply of electric current?
13. When are salmon taken for canning? (See article on SALMON.)

NOTABLE FACTS ABOUT TEXAS

1. Texas has 262,398 square miles of land, of which 11.6 per cent is improved. Its population is 3,896,592, or 14 persons to the square mile. The German Empire has 208,780 square miles of land, of which 91 per cent is improved. Its population is 64,903,423, or 310 persons to the square mile.

2. The western part of the state is known as the Staked Plain and consists of large treeless steppes. Nearly all the rivers flow to the southeast and empty into the Gulf of Mexico. The western part of the state has little rainfall; the eastern and central parts are well watered.

3. Texas was originally a part of Mexico. It declared its independence in 1836 and was annexed to the United States in 1845—this causing a war between the two countries. It was first settled by Spanish missionaries in an effort to hold the country against the claims of France. These were based upon the expedition of La Salle.

4. The principal agricultural products of the state are cotton, sheep, and cattle. It has a great variety of both plants and animals. Cypress, cedar, oak, cottonwood, pecan, and pine trees abound, but in different parts of the state. In certain portions are found the coyote, the jackrabbit, and the prairie dog; in other parts are found the jaguar, armadillo, bear, deer, and opossum. Birds are numerous.

5. All kinds of geological formations are found. The principal mineral productions are petroleum, gypsum, limestone, coal, and copper.

6. The smallest rainfall is in the west; the largest in the northeast—the range being from 5 to 60 inches. The temperature is highest on the western uplands and seldom goes below freezing at Galveston and other coast points. Crops bring from $15 to $90 per acre, on the average.

7. The state has a free public school system, several normal schools, a state classical university, a state college for instruction in agriculture and mechanics, and a number of private denominational colleges and universities.

QUESTIONS FOR STUDY

1. Why have the people of the German Empire improved 80 per cent more of their land than the people of Texas? Is it better land? Will Texas land support only fourteen persons to the square mile?

Why does the land of the German Empire support twenty-two times as many people per square mile as Texas does? How does Texas compare in size with other prominent states?

2. What can you say of the age and character of Texas land? What minerals are found in the state? Where are they?

3. Is Texas climate uniform? Explain its rainfall. Can you account for the difference in heat in different parts of the state? What is the average value of Texas crops? Which are its principal farm crops, fruits, and flowers?

4. Why are there few trees in western Texas? Why do the most of the rivers flow to the southeast? Can you give any notable exceptions?

5. By whom was the state founded? Where? When? Tell all about its becoming a state.

6. What does Texas export principally? What does it import? What means of transportation are used?

7. Has it any forests? Where? Why do certain timber trees grow at the places named? What is a pecan tree? Is it grown for timber? Why are few wild animals now found in Texas?

8. Is Texas a mineral, an agricultural, or a manufacturing state?

PRODUCT MAP OF GEORGIA

1. Georgia is said to be the largest state east of the Mississippi River, and was one of the thirteen original states. It is called the Empire State of the South. What other state is called the "Empire State" of the Union? Why?

2. The Blue Ridge and the Cohutta Mountain ranges terminate in the northern part of the state. Lookout Mountain, Tallulah Mountain, the Kenesaw Mountains, and Stone Mountain, with others, are detached ranges or peaks noted historically, or for their mineral products.

3. The Chattahoochee River has been made famous by a poem of one of Georgia's writers—Sidney Lanier. It starts in the northeastern corner of the state and bounds the southwestern half. What part of its course is described in *The Song of the Chattahoochee?*

4. Georgia is noted for its marble, its granite, its cement products, and its clays. These are used in buildings, in street paving, and in making pottery, chinaware, bricks, sewer pipes, etc. Coal, iron, gold, and roofing slate are also important products.

5. In manufactures Georgia ranks high—the total value of its product in this line by the census of 1910 being nearly $160,000,000. There were over 3,200 manufacturing establishments and over 62,000 wage earners employed in them. The largest items of manufacture were cotton goods, lumber and other timber products, and fertilizers.

6. About 24,000,000 acres are cultivated—mostly by negro labor. Sea Island cotton is noted for its long staple. Watermelons and peaches are produced in large quantity and excellent quality. Next to cotton, the most important agricultural products are sugar-cane, corn, tobacco, and rice.

7. In literary development, religion, and charity the state ranks high. It has a fine public school system, higher educational institutions for both white and black, two state normal schools, a school of technology, a college of agriculture, and numerous private colleges and seminaries The state contains fifty-nine benevolent institutions.

QUESTIONS ON GEORGIA

1. Study the productions of Georgia and the sections in which they are most abundant.

2. Would you infer from this study that the soil of the state is of one kind? What reason for your answer?

3. What does this product map teach you as to the surface of the state? As to its drainage?

4. Name five minerals found in the state in paying quantities. Which of these are most abundant?

5. In what part of the state are the forests most abundant? What are the principal varieties of trees in Georgia forests? What commercial products are obtained from them?

6. What fruits and melons are produced? Where? How are they cultivated? What are some of their insect enemies? Of their diseases?

7. What other plants produce good crops? Do any of the people of the state engage in market gardening?

GEORGIA

IRON
COAL
FORESTS
MILLS
ATLANTA
AUGUSTA
CORN
QUARRIES
FORESTS
TURPENTINE
MACON
CATTLE
SAVANNAH
GARDENING
PEACHES - PEARS
MELONS
FRUIT
SWEET POTATOES
COTTON
RICE
SUGAR CANE
TOBACCO

1
TAR
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17

8. What trees are cultivated in the state for the sake of their nuts? What other kinds of groves in southern Georgia?

9. How is the peanut grown? Tobacco? Cotton? What part of each plant is used? Mention some of the manufactured products of each.

10. How is sugar made from sugar-cane? Why is some sugar brown and some white? Why is some sugar in powder, some in grains, and some in cubes? From what other sources is sugar obtained? Of what use is the sugar-bird?

11. How is sugar-cane propagated? Is Georgia the largest producer? Does sugar-cane furnish any other product for man than sugar? Is sugar obtained from it in the same way as from beets? What use is made of the bagasse?

12. Which are the principal cities of Georgia? For what are Atlanta, Macon, and Savannah noted? Name an incident of the Civil War connected with each city. (See maps in outline of United States History.)

INTERESTING FACTS ABOUT ILLINOIS

1. Illinois is noted in early history for the expeditions of Marquette, Joliet, and La Salle; in internal growth, for having the second city in size and importance in the Union; in general development, for its prominence in finance, in manufacturing, in agriculture, in mining, in transportation facilities, and in art and educational equipment, and for its variety in climate and soil.

2. The name is taken from that of an Indian confederacy of five tribes. Originally it was "Illini" or "men," but it was changed to Illinois by the French explorers. George Rogers Clark captured Kaskaskia from the British in 1778. The Illinois tribe of Indians was exterminated at Starved Rock because of the assassination of Pontiac.

3. The surface is of slightly undulating prairies; the soil mostly a rich loam; its geographical position gives it moderate temperature and good rainfall; and so it is prominent as an agricultural state. Over 90 per cent of its area is in farms—its farm lands being valued at nearly $2,000,000,000, its corn product alone being 370,000,000 bushels, and the number of its domestic animals estimated at 9,703,000.

4. Reports of the United States Census as to the development of the state in other lines are to be found in the body of this work. (See Statistics under ILLINOIS.) The principal cities are Chicago, Peoria, East St. Louis, Springfield, Rockford, and Quincy.

5. The state is noted for its public school system, its educational and charitable institutions, the attention given to questions of public health, and for the efforts to educate the people to the use of art in public buildings, in parks, on private grounds, etc.

6. No business corporation can be created in Illinois by special laws; bank stockholders are liable for double the amount of their stock; and competing railroads are forbidden to consolidate.

QUESTIONS ON ILLINOIS

1. Describe the trip of Marquette and Joliet. What was its purpose?

2. Which is the largest city in Illinois? What are some of its notable public buildings and public parks? For what else is the city noted? (See article on CHICAGO in the body of this work.)

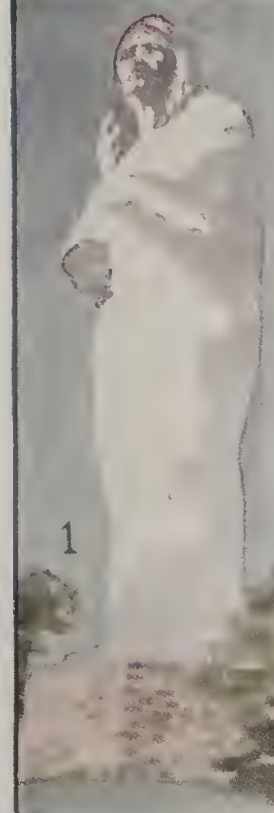
3. What are some of the principal manufactures of the state? Principal mineral products?

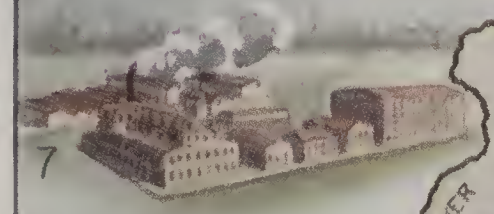
4. Who was George Rogers Clark? Of what importance was his capture of Kaskaskia?

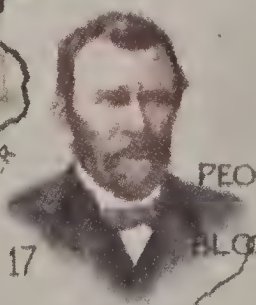
5. What are some of the principal cereal products of the state? Fruits? Root products?

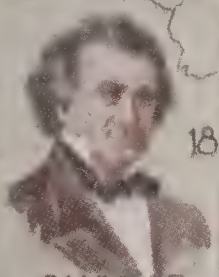
ILLINOIS

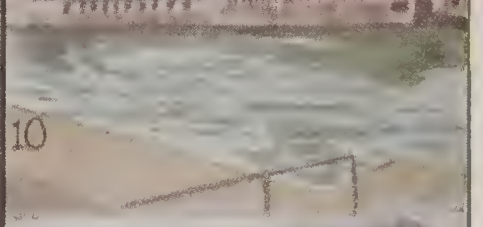
The Prairie State

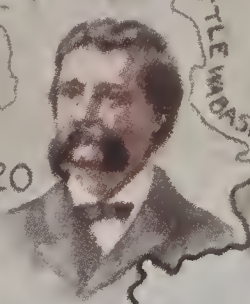


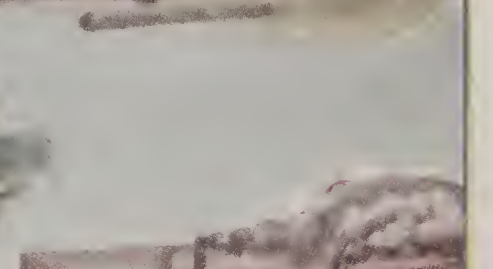


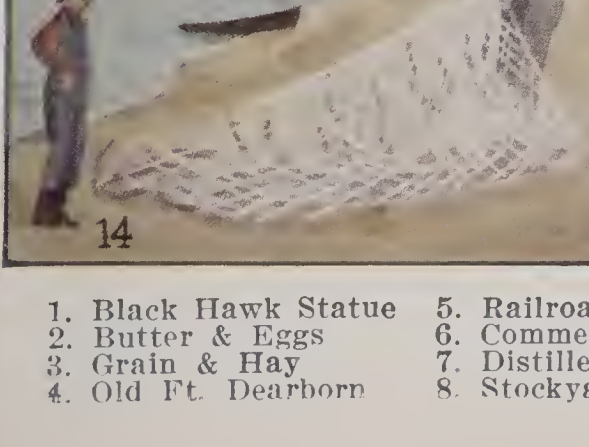


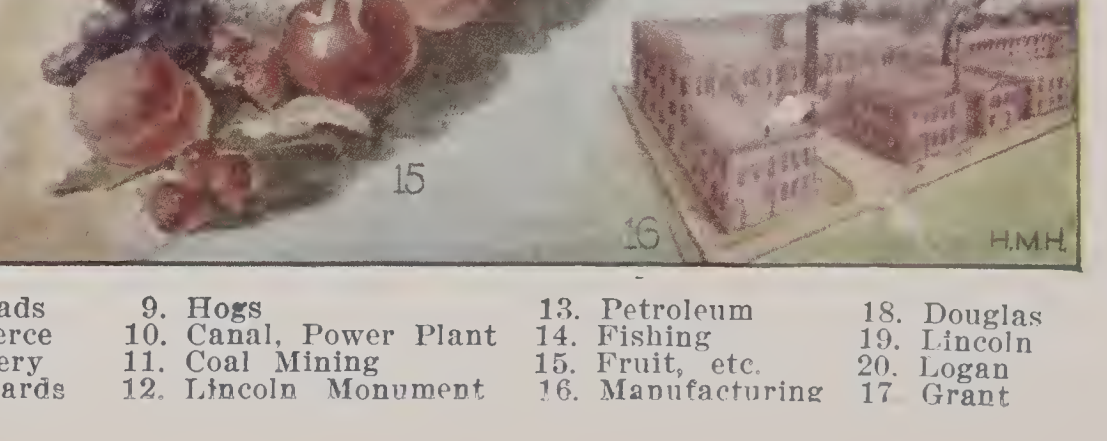












1. Black Hawk Statue
2. Butter & Eggs
3. Grain & Hay
4. Old Ft. Dearborn
5. Railroads
6. Commerce
7. Distillery
8. Stockyards
9. Hogs
10. Canal, Power Plant
11. Coal Mining
12. Lincoln Monument
13. Petroleum
14. Fishing
15. Fruit, etc.
16. Manufacturing
17. Grant
18. Douglas
19. Lincoln
20. Logan

INDIANA

LAKE MICHIGAN

MICHIGAN

CHICAGO

GARY

IRON & STEEL PRODUCTS

HAMMOND

SO. BEND

SLAUGHTERING & MEAT PRODUCTS

CARRIAGES and WAGONS

AUTOMOBILES

STORE

GLASS

FURNITURE & REFRIGERATORS

FOUNDRY & MACHINE SHOP PRODUCTS

CORN

AGRICULTURAL PRODUCTS

CORN

NEWSPAPER

ILLINOIS

OHIO

COAL

SOLDIERS MONUMENT AT INDIANAPOLIS

INDIANAPOLIS

LUMBER & TIMBER PRODUCTS

JAMES WHITCOMB RILEY

POULTRY FEED

PETROLEUM AND ITS PRODUCTS

GRIST MILL PRODUCTS

IRON AND STEEL PRODUCTS

CORN

QUARRIES

LIMESTONE & SANDSTONE

LIQUORS

KENTUCKY

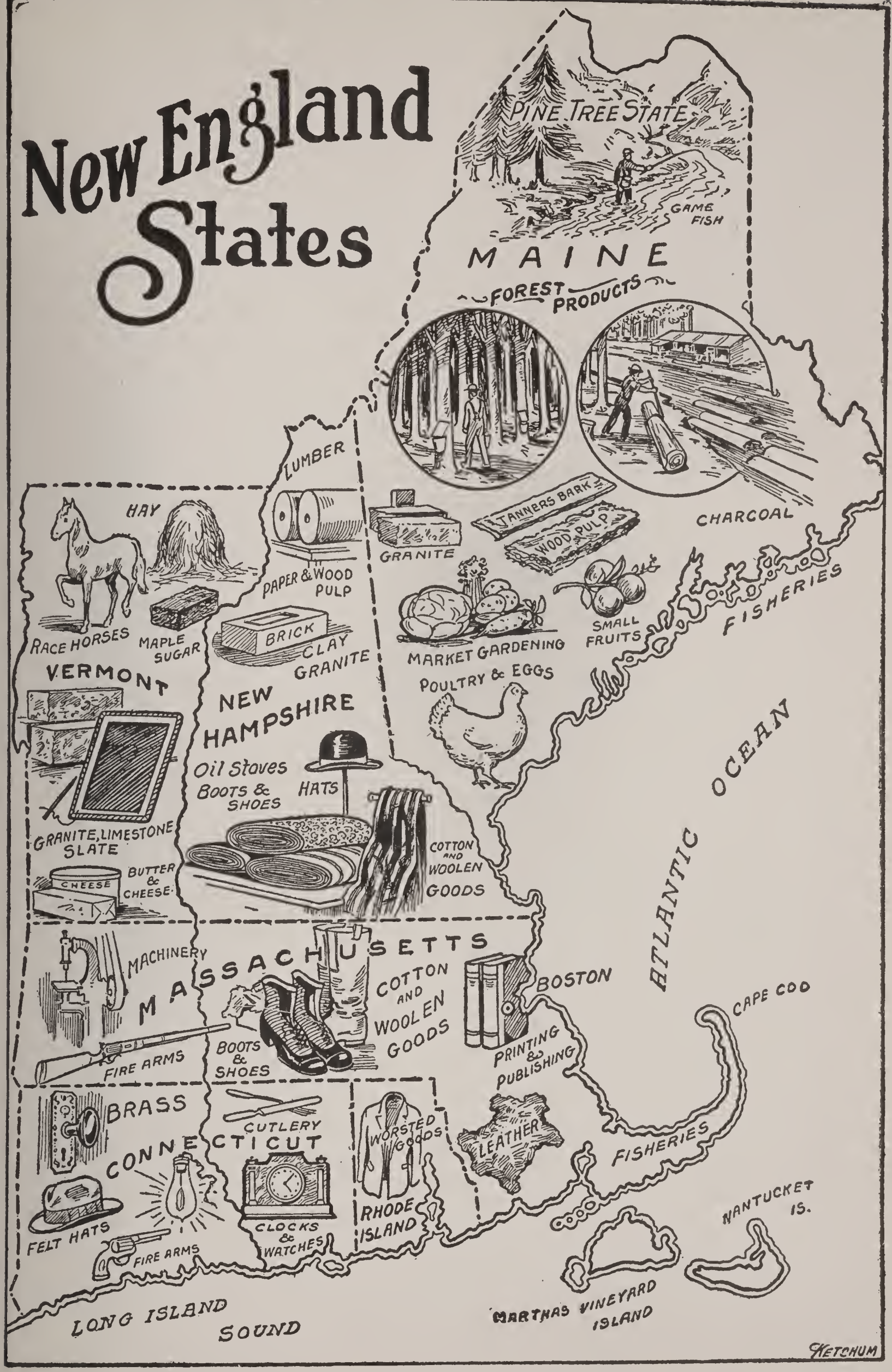
KETCHUM

CALIFORNIA

APPLES
PEARS
PEACHES
CHERRIES
PLUMS
APRICOTS
ALMONDS
FORESTS
WHEAT
LIVE STOCK
REDWOODS
SACRAMENTO
SAN FRANCISCO
EXPORTATION
CHERRIES
PEACHES
PRUNES
APRICOTS
SANTA CLARA VALLEY
SAN JOAQUIN R.
GRAPES
FRESNO
GRAPES
SPANISH MISSIONS
MANUFACTURES
LUMBER
CEMENT
CANNED FRUITS
DRIED FRUITS
REFINED OILS
FLOUR
COPPER & TIN WARE
PART OF SOUTHEASTERN CALIFORNIA
SALT
IRRIGATION
49
NEVADA
MINING
GOLD AND SILVER
ZINC
LEAD
BORAX
PETROLEUM
QUICKSILVER
LEMONS
ORANGES
GRAPE FRUIT
LOS ANGELES
OSTRICHES
SAN DIEGO

KETCHUM.

New England States



VIRGINIA, WEST VIRGINIA, MARYLAND, DELAWARE.

6. Name three insects and three insect larvae damaging to each of these crops. What means of destroying these insect enemies? Why use different insecticides?

7. What are the principal domestic animals found in the state? Mention a disease peculiar to each and tell how to treat it.

8. In what way does the Pure Food Law affect the manufacturers of Illinois?

9. What is dairying? What are dairy products? To what extent does Illinois engage in this industry?

10. Mention some of the means of public transportation. Of drainage. Of disposal of garbage and sewage.

PHYSICAL GEOGRAPHY

THE SEASONS—METEOROLOGY

DEVELOPMENT.

1. Observed by people of all periods of time.
2. Views of ancient peoples.
3. Superstitions and their influence (ancient, modern).
4. Present study of the subject. Character?
5. Modern development.
   a. Charts.
   b. Maps.
   c. Instruments (barometer, seismograph, anemometer, thermometer, etc.).
   d. Study of air currents, their causes, course, effects, etc.
   e. Observations and experiments.
6. The Weather Bureau.
   a. Its purpose, forecasts, etc.
   b. How maintained?
   c. How beneficial to commerce?
   d. How beneficial to agriculture?
   e. How beneficial to general health?
   f. Other benefits from it?

AIR PHENOMENA.

1. What is temperature?
2. Cause of air temperature? Why does it change?
3. Winds resulting from air changes:
   a. Land and sea or lake breezes.
   b. Regular air currents.
   c. Trade winds.
   d. Monsoons.
   e. Irregular winds.
4. Moisture distributed:
   a. Clouds, kind, causes, meaning.
   b. Vapor, its source and character.
   c. Fog, distinction from cloud.
   d. Dew, cause, benefits.
   e. Frost, description, hoar frost, black frost.
   f. Rain, formation, effects, mist.
   g. Snow, origin, forms, uses.
5. Storms and Cyclones.
   a. Cause.
   b. Where most frequent? Why?
   c. Course and increase in fury.
   d. Effects on land; on the sea.
6. Special phenomena.
   a. Lightning, causes, kinds, effects.
   b. Aurora Borealis, appearance, supposed cause.

WEATHER SIGNALS.

1. Where displayed?
2. To whom beneficial?
3. Kinds.

Suggestive reading and fuller information are found in the body of this work under SUNSHINE, WEATHER BUREAU, WIND, ANEMOMETER, SEISMOGRAPH, BAROMETER, THERMOMETER, AIR, TRADE WINDS, MONSOON, CYCLONE, CLOUD, FOG, DEW, FROST, RAIN, SNOW, AURORA BOREALIS, LIGHTNING, COMMERCE, TONNAGE, SPRINGS, etc.

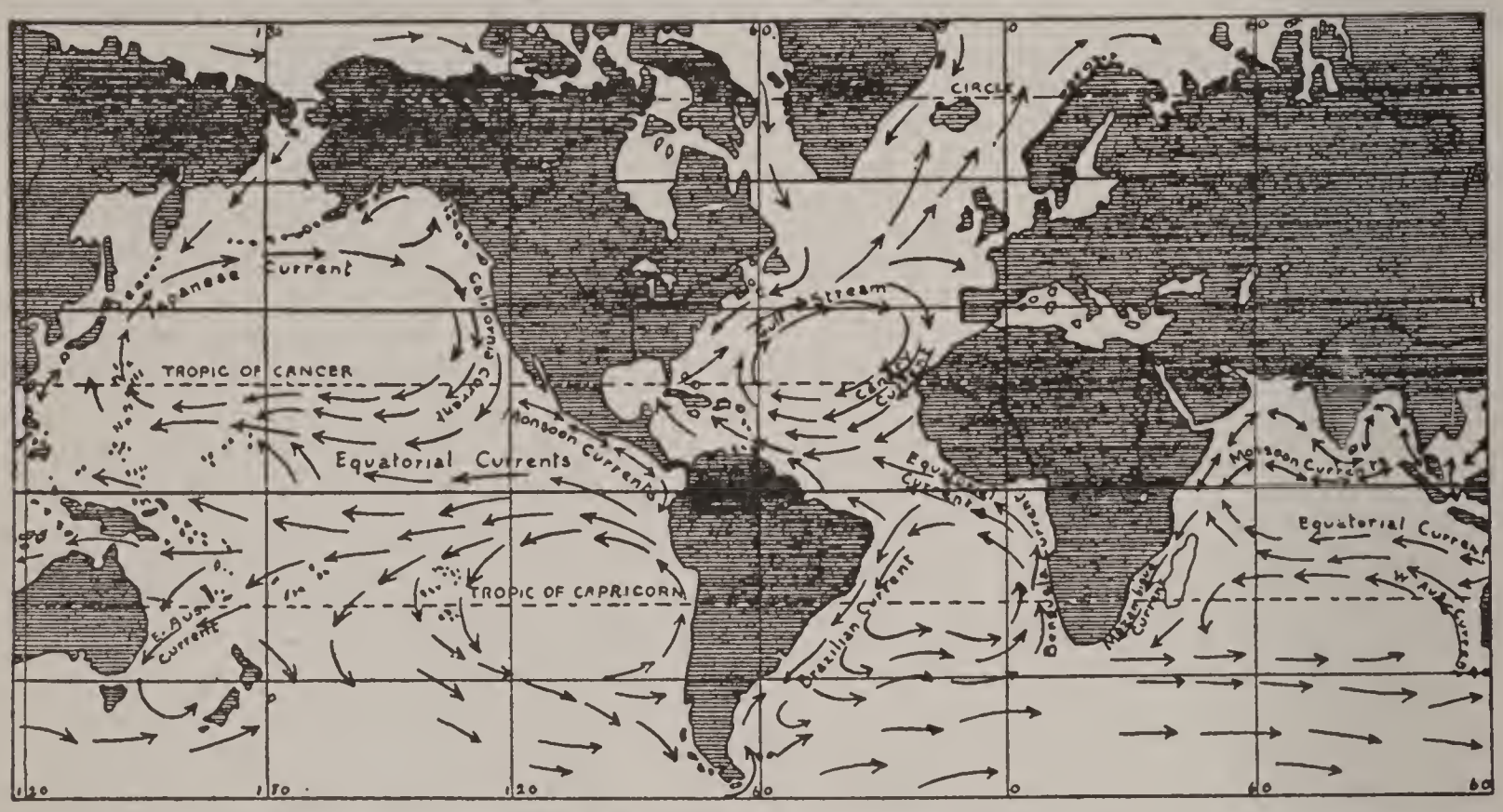
EARTHQUAKES AND VOLCANOES

EARTHQUAKES.

1. What is an earthquake?
2. Examples.
   a. San Francisco, 1906.
      (1) Extent of fault line.
      (2) Character of movement.
      (3) Destructiveness to life and property.

b. Southern Italy.
   (1) Frequency: 1688, 1693, 1783, 1909.
   (2) Destructiveness.
c. Japan: 1891.
   (1) Movement.
      1. Vertical, 2 to 20 feet.
      2. Horizontal, 13 feet.
   (2) Destructiveness.

3. Frequency of minor earthquakes.
   a. California averaged 36 yearly from 1889 to 1899.
   b. Japan, several per day.
   c. Isthmus of Panama (169 recorded in 40 months).
4. Earthquake tidal wave.
   a. What is it?
   b. How produced?
   c. Destructiveness: for example, Messina earthquake of 1909.
5. Distribution of earthquakes.
   a. Western hemisphere.
   b. Eastern hemisphere.
   c. In relation to growing mountain regions.



d. Away from growing mountain regions.
e. Among islands of the sea.
6. Changes produced in land surface by earthquakes.
a. Cracks and fissures.
b. Drainage disturbed.
c. Landslide started.
d. Aquatic life often destroyed.
7. Causes.
a. Faulting and folding of earth's crust.
b. Volcanic explosions.
c. Landslides and avalanches.
d. Slumping on fronts of deltas and continental shelves.
e. Falling of roofs of underground caves.

VOLCANOES.

1. Introduction.
a. What is a volcano?
b. Shape of cone.
c. Classification.
(1) On basis of type of eruption. (a) Quiet. (b) Explosive.
(2) On basis of material thrown out. (a) Lava. (b) Cinders, ashes, gases, solid rock.
(3) On basis of activity: active, dormant, extinct.
d. Crater.
(1) What is it?
(2) How formed?
(3) Size.
(4) Shape.
2. Examples of active type.
a. Vesuvius.
(1) Location.
(2) History of activity.
(3) Present size.
(4) Destructiveness.
(5) Recent activity.
(6) Type of eruption.
(7) Material thrown out.
b. Stromboli.
(1) Location.
(2) Why called the lighthouse of the Mediterranean?
(3) Size.
(4) Position of the crater.
(5) Type of eruption.
(6) Kind of material thrown out.
c. Hawaiian Volcanoes.
(1) Size of mountains and craters.
(2) Type of eruption.
(3) Kind of material thrown out.
(4) Relation to origin of the island.
3. Material thrown out:
a. Lava, cinders, ashes, fire, mud, and gases.
b. When beneficial? How?
4. Distribution and number.
a. Distribution of active volcanoes.
(1) In relation to the Pacific Ocean.
(2) In relation to the Mediterranean Sea.
(3) In relation to the Atlantic Ocean.
b. Number on land and in the sea.
5. Effects produced by volcanoes.
a. Build cones, mountains, islands, plateaus, etc.
(1) How?
(2) Material?
(3) Examples: Mt. Rainier, Canary Islands, Java, Pompeii, etc.
b. Changes or destroys cones, mountains, and islands by explosions or otherwise.

Post yourself by reading the articles on EARTHQUAKE, SAN FRANCISCO, HAWAII, VOLCANO, NICARAGUA, MEXICO, MESSINA, JAPAN, PHILIPPINE ISLANDS, ASHES, PUMICE, AVALANCHE, DELTA, POMPEII, JAVA, HECLA, AZORES.

THE OCEAN

GENERAL CONCEPTION OF THE OCEAN.

1. Distribution of ocean water over the earth.
a. Land compared with water surface, as to amount and as to effect on climate and on life.
b. Northern compared with southern hemisphere.
c. Peculiarities of Arctic and Antarctic oceans.
2. Area.
a. Of ocean basins.
b. Of continental shelves.

c. In proportion to total area of earth's surface.

3. Depth.
   a. Average in each of the five oceans.
   b. Maximum in Pacific, Atlantic, and Indian oceans.
   c. Causes of the varying depth.

THE OCEAN BOTTOM.

1. Shape of bottom.
   a. Volcanic cones or mountains.
   b. Valley-like depressions.
   c. Plateau-like areas.
   d. Lack of ruggedness compared with land? Why?
2. Material of bottom.
   a. From the land underneath: sand, gravel, clay, rock, etc.
   b. From organic sources: coral and oozes.
   c. From volcanoes in the sea: lava, cinders, ashes, boulders, etc.

THE OCEAN WATER.

1. Composition.
   a. Minerals: salt, magnesium, chloride, magnesium sulphate, potassium (chloride and sulphate), calcium bromide, etc.
   b. Gases: nitrogen, oxygen, carbon dioxide.
2. Temperature.
   a. Of the surface.
      (1) Polar compared with equatorial region.
      (2) Variation in same latitude. Why?
   b. Beneath the surface.
      (1) Variation with depth.
      (2) Average of the deeper parts.
3. Movements.
   a. Waves.
      (1) Cause: why do they "top over" at the shore?
      (2) Movement of water particles in a wave.
      (3) Effect on the shore.
      (4) What are "whitecaps."
   b. Currents.
      (1) Distribution in the Pacific, Indian, and Atlantic Oceans.
      (2) What about Arctic and Antarctic Oceans?
      (3) Direction of flow and velocity.
      (4) Causes: trades, westerlies, monsoons.
      (5) Agents directing them: (a) Borders of continents. (b) Prevailing winds. (c) Rotation of the earth. (d) Landlocked bays.
      (6) Types: warm and cold with causes of each.
      (7) Effects on climate; windward compared with leeward shores.
      (8) Economic value to climate; to navigation.
4. Tides.
   a. What is a tide?
   b. Causes: attraction of heavenly bodies, especially the moon. Explain to the class.
   c. Height.
      (1) In bays.
      (2) In mid-ocean.
      (3) Variation.
   d. Flood tides.
   e. Spring and neap tides.

OCEAN LIFE.

1. Types of life.
   a. Animal; kinds and peculiarities.
   b. Plants; kinds, where found.
2. Distribution.
   a. In latitude.
   b. In depth.
   c. Near-shore compared with mid-ocean.
   d. Factors affecting distribution.
      (1) Food supply.
      (2) Temperature.
      (3) Depth.
      (4) Enemies.
      (5) Clearness.
      (6) Quiet water and rough.
      (7) Ice.
      (8) Salinity.
      (9) Birds.
      (10) Winds.
      (11) Ships.
3. Economic value.
   a. Food supply: fish, crabs, lobsters, etc.
   b. Manufactures: from plants, bones, shells, sponge, etc.
   c. Jewelry: Pearls, Coral, etc.

ECONOMIC IMPORTANCE OF THE OCEAN.

1. Food supply and material for manufactures.

2. Aids commerce (highway for ships, telegraph, etc.).
3. Moderates climate of land.
4. Supplies moisture for rain.
5. Affords pleasure and health resorts.

References in the body of this work: articles on ARCTIC REGIONS, KANE, GREELEY, KAMCHATKA, ANTARCTIC CONTINENT, ATLANTIC OCEAN, PACIFIC OCEAN, CLIMATE, CORAL, VOLCANO, SALT, EQUATOR, WIND, MONSOON, EARTH, TIDES, Plants (General Index); Animals (General Index); THERMOMETER, HEAT, CLAM, CRAB, DELTA, TIDES, COBBES.

NILE RIVER SYSTEM

(Intended as suggestive in the study of RIVERS.)

GENERAL FACTS.

1. Location, both politically and physically.
2. Size of drainage basin compared with river basins in the United States.
3. Length of river.

CHARACTER OF CLIMATE IN REGION.

1. Amount and distribution of rainfall.
2. Distribution of temperature.
3. Vegetation.
   a. Density along streams.
   b. Density in White Nile region.
   c. Obstacle to navigation. What is sudd?
   d. Methods of removal from stream.

SOURCE OF WATER SUPPLY.

1. Lake region.
2. Abyssinian plateau region.
3. Why fourth in water discharge among African rivers?

TRIBUTARIES.

1. Upper portion of Nile.
   a. Numerous tributaries. Describe and explain.
2. Reasons for absence of tributaries on lower portion of Nile.

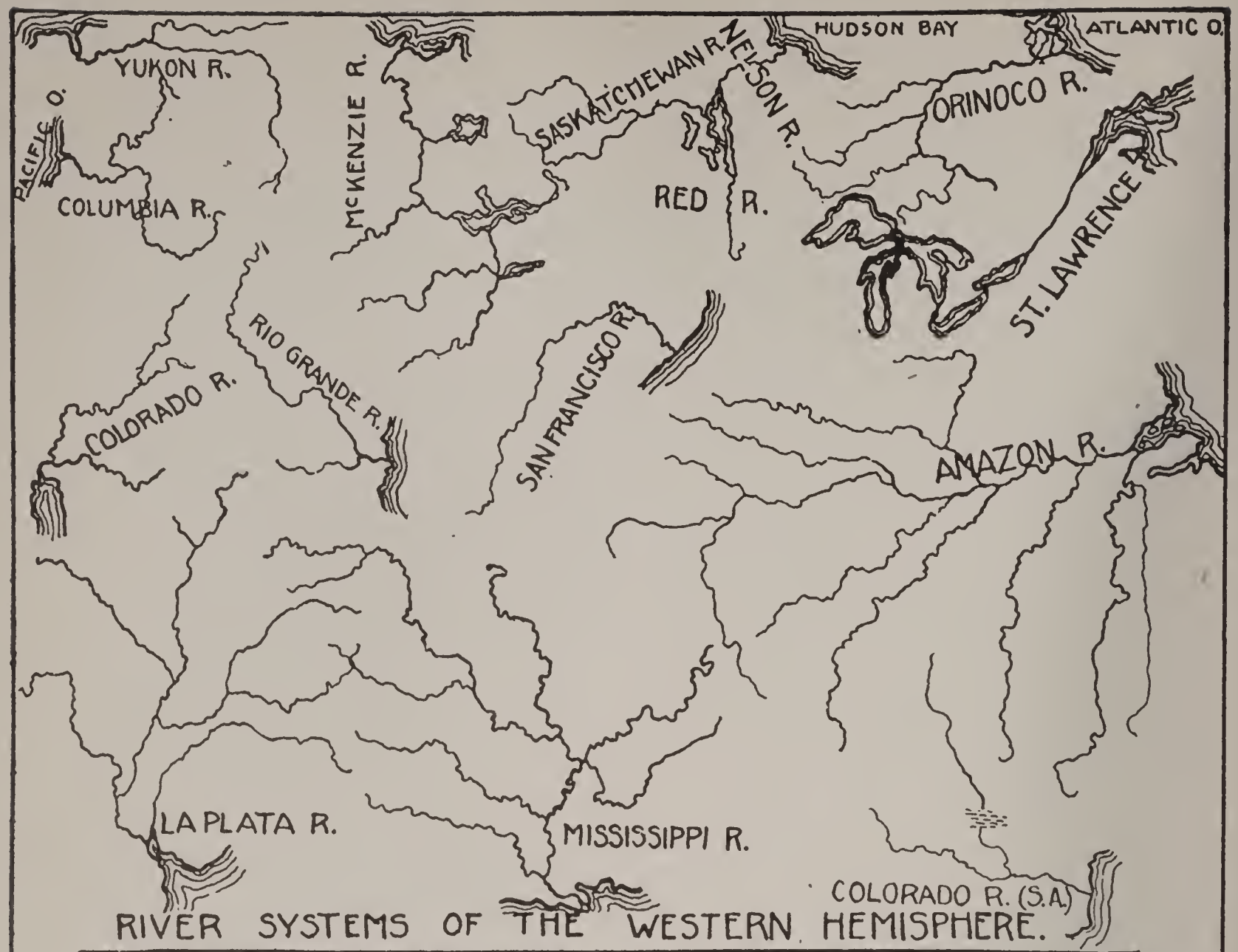
DELTA.

1. Size and how produced. What is silt?
2. Character of surface as to shape, soil, and fertility.
3. Economic importance.
   a. Agriculture: cotton, wheat, rice, sugar cane, live stock, etc.
   b. Transportation via streams or canals.
   c. Location of cities. To what due?

ECONOMIC RELATIONS.

1. Flood plains.
   a. Extent and where.
   b. Soil and how fertilized.
   c. Relation to agriculture and distribution of population.

   d. Floods of the Nile.
      (1) Past: character of, value.
      (2) Present: how regulated.
2. Navigation.
   a. Highway to Egypt.
      (1) Navigable depth and how far.
      (2) Kind of vessel.
      (3) Kinds of products carried.
      (4) Volume of traffic.
   b. Cataracts and falls.
      (1) Location.



RIVER SYSTEMS OF THE WESTERN HEMISPHERE.

RIVER SYSTEMS OF THE EASTERN HEMISPHERE.

(2) Description.
(3) Obstacles to navigation.
c. Outlet for what other countries?
3. Cities.
a. Location of principal cities along the Nile.
b. Factors influencing location.
(1) River a route of commerce.
(2) Agricultural area.
(3) Products from interior Africa.
4. Fish.
a. Leading kinds.
b. Importance of industry.
5. Irrigation.
a. Present system.
b. Importance.
(1) Increased value of land.
(2) Increased value of crop.
(3) Decreased floods.
(4) Control of famine.
c. Early methods.
6. Importance of Nile to Egypt.
a. Habitable portion not watered by Nile very limited.
b. What would Egypt be without the Nile? Theme: The Nile and Its Banks is Egypt.

HISTORICAL.

1. Early civilization confined to the Nile, especially the Delta.
2. Descriptive stories of early Egyptian history along the Nile, early Pharaohs, pyramids, etc., emphasizing dependence of people and development of civilization upon the Nile and its floodplain.

Interesting information will be found in the body of this work under the heads NILE, EGYPT, NYANZA, IRRIGATION, RAIN, ABYSSINIA, DELTA, COTTON, WHEAT (see Wells' note), SUGAR CANE, ALEXANDRIA, SUEZ CANAL, NILOMETER, PHAROAH, COMMERCE, MEMPHIS (Egypt), THEBES (Egypt), PUMP, FERTILIZER.

SPRINGS AND ARTESIAN WELLS

SPRINGS.

1. What is a spring? Distinguish from seepage.
2. Source of water.
3. Types of springs.
a. Permanent and intermittent; why does a spring intermit?
b. Hot, cold; why hot?
c. Mineral.
(1) Kinds.
(2) Source.
(3) Contents of hot compared with cold.
d. Medicinal.
(1) What makes a spring medicinal?
(2) Examples showing special usefulness.
e. Geysers.
(1) Characteristics.
(2) How formed.
(3) Examples.
(4) Value.
4. Conditions favorable for a spring.
a. Source of water above outlet.
b. Impervious clay or rock layer underlying the water.
c. An opening at some point below water source.
5. Volume.
Examples of large volume. To what due?
6. Deposition.
a. From hot and cold springs; why?
b. From geysers; description.
c. Quantity; examples of a few large springs.
7. Value.
a. For domestic water supply.
b. In sustaining flow of rivers.
c. Medicinal.
d. In beautifying scenery, etc.

Read carefully the articles in this work on HOT SPRINGS, ARK., YELLOWSTONE PARK, GEYSER, SPA, CARLSBAD, BADEN, SULPHUR, POPOCATEPETL, ARTESIAN WELLS, NEW ZEALAND, LITHIUM, BATH, VICHY.

ARTESIAN WELLS.

1. Types.
a. Name often applied to any unusually deep well.
b. Name applied to a self-flowing well (as used here).
c. Derivation of name; Artois, France.

d. Artificial, constructed by factories and cities.
2. Conditions essential.
   a. Porous rock layers to carry water.
   b. Impervious layers both above and below the porous layer.
   c. Porous bed must come to the surface in some region higher than the mouth of the well; a slope of one foot to the mile is sufficient.
   d. Sufficient rainfall on exposed porous bed to keep it supplied with water.
3. Distribution: United States and other countries.
4. Depth: a few feet to over 5,000 feet.
5. Volume: a few gallons to over 5,000,000 gallons per day.
6. Value.
   a. For domestic water supply in city and country.
   b. For irrigation (note arid and semi-arid sections of the United States).
   c. For supplying manufacturing establishments.
7. How long in use?

LAKES AND LAKE BEDS

WHERE THEY OCCUR.
1. In mountains: high and low, glaciated and unglaciated.
2. On plains.
   a. Interior plains.
   b. Coastal plains.
3. On plateaus (Africa, Great Basin).
4. Along rivers, especially rivers in old stage of development.
5. In both high and low latitudes.
6. Along coasts and lagoons. Relation to latitude.
7. In volcanic craters (Crater Lake).
8. On islands (Trinidad).

AREA AND DEPTH.
1. Large lakes.
   a. Few in number (Great Lakes, Caspian Sea, etc.).
   b. Area; compare with familiar area.
2. Small lakes.
   a. Thousands in number.
   b. Where most occur.
   c. Reason for being found here.
3. Depth and shape of basin.
   a. Great Lakes.
      (1) Maximum and average depth.
      (2) Surface compared with sea level.
      (3) Depth compared with sea level.
   b. Dead Sea, Titicaca, etc.

MOVEMENTS OF WATERS.
1. Waves; cause.
2. Currents; direction and cause, e. g., in the Great Lakes.

SALT LAKES, ASPHALT LAKES, ETC.
1. Why some are salty.
   a. No outlet except evaporation.
   b. Accumulation of mineral matter.
2. Source of asphalt and other substances.
3. Examples: Great Salt Lake, Pitch Lake, Death Valley.

CONDITIONS NECESSARY FOR A LAKE OR LAKE BED.
1. Basin with or without an outlet.
2. Supply of water, now or previously.
3. Decomposition.

SOURCES OF WATER.
1. Rain.
2. Melted snow and ice.
3. Rivers.
4. Springs and seepage.

HOW LAKES ARE FORMED.
1. By springs.
   a. From the surface or underneath.
   b. Of water.
   c. Of pitch or other substances.
2. Glaciers.
   a. By erosion, leaving valleys.
   b. By deposition, stopping up valleys.
3. By crustal movements.
   a. Downward warping of earth's crust.
   b. Cracking and sinking of a block of earth's crust.
4. By rivers.
   a. Cut-off meanders.
   b. Abandoned portions of the channel.
   c. Expansions of a river bed.
   d. As terminations of desert rivers.
5. By volcanism.
   a. In craters.
   b. Obstruction of river valley by lava flow.
6. By waves and shore currents.

LAKES OF THE WESTERN HEMISPHERE.

LAKES OF THE EASTERN HEMISPHERE

a. By building bars across outer ends of sunken valleys.
b. By building bars across bays, coves, etc.

7. By mountain valleys.

CHANGES IN LAKES.

1. Filling of basins by:
   a. Deposition of inflowing streams.
   b. Deposition of wave-eroded material in basin.
   c. Deposition of plant and animal material.
   d. Deposition of sand and dust by wind.
   e. Deposition of volcanic material.
2. Draining of basin:
   a. By natural or artificial outlets.
   b. By removing the contents.

VALUE OF LAKES.

1. For domestic water supply.
2. As a source of food.
3. For navigation.
4. As modifiers of climate.
5. As pleasure resorts.
6. As a source of borax, asphalt, medicines, etc.
7. As a source of power (see TITICACA).

In the body of this work the reader will find articles on LAKE, AFRICA, GREAT BASIN, GREAT SALT LAKE, MACKENZIE, ALKALI, LAKE AGASSIZ, Lakes (General Index); CASPIAN SEA, MINNESOTA, GREAT LAKES, BORAX, ASPHALT, SALTON SEA, TRINIDAD, VENEZUELA, SUEZ CANAL, LAKE TCHAD.

EROSION

The surface of the earth is constantly being changed by chemical action, by winds, waves, streams, and other causes. The process is usually slow, but, during long periods of time, produces important changes. While some sections are denuded of their soil, others are enriched. Rocks on mountains or hills are disintegrated and the dust carried away by winds or streams to the valleys below. Rivers and their tributaries cut their way into the surface and carry enormous quantities of silt to form deltas at their mouths or to be carried away by waves to distant shores. Waves often strike cliffs and headlands with tremendous force, tearing down, grinding up, or otherwise disintegrating even the most solid rocks. The material thus obtained forms no unimportant part of the soil of the earth and, taken into connection with the grinding and sliding of glaciers, it is a subject well worthy the attention of the student of geography.

CHARACTER OF EROSION.

1. What the process is.
2. Its causes.
3. Benefits; injuries; changes.

AERIAL EROSION.

1. Chemical action preceding. Explain.
2. Climatic effects on rocks; on soil.
3. Action of the wind. Illustrations.

EROSION BY RIVERS AND OTHER STREAMS.

1. Effects of moisture and temperature.
2. Action of the rain on particles thus produced.
3. Difference between "solution" and "suspension."
4. What is silt? What is a delta?
5. Describe the deltas of the Mississippi River; the Nile; the Po; the Ganges River.
6. What is the effect of geysers? Of glaciers?
7. Describe the results of stream erosion.
8. Do icebergs help this process.

EROSION BY WAVES, TIDES, ETC.

1. What is a water wave?
2. Difference between wind waves and tidal waves.
3. Mention two causes of tidal waves.
4. Give some instances of wave action, either direct or through the undertow.
5. How does the sinking of a shore help wave action?
6. What are tidal currents? Their effect?

SUBMARINE EROSION.

1. How helped by volcanic action?
2. Do earthquakes influence changes in the bottoms of the oceans?
3. How is the material distributed?

The reader will find fuller information on the topics outlined above by reading the articles in the body of this work on CHEMISTRY, DELTA, WIND, SOIL, ROCK, CLAY, HEAT, GEYSER, ICEBERG, GLACIER, VOLCANO, EARTHQUAKE, TIDES, AIR, etc.

FORESTS IN THE UNITED STATES

FOREST AREA.

1. Total 550,000,000 acres, ¼ of area of United States.
2. Public, 1-5 of forest area.
3. Original, 850,000,000 acres.
4. Divisions; northern, southern, central, Rocky Mountain, Pacific, Alaskan.

LUMBER CENTERS.

1. Pine forests of southern states being rapidly exhausted.
2. Pine forests of Lake States nearly exhausted.
3. Order of importance: Wash., La., Miss., N. C., Ark., Va., Tex.
4. Other woods used for lumber: cypress, oak, poplar, walnut, elm, maple, bass, etc.

YEARLY CONSUMPTION.

1. Firewood, 90,000,000 cords.
2. Lumber, 44,000,000 board feet.
3. Railroad ties, 124,000,000 feet.
4. For barrels:
   a. In making 1,500,000,000 staves.
   b. In making 133,000,000 sets of headings.
   c. In making 500,000,000 barrel hoops.
5. Wood pulp, 3,200,000 cords.
6. Mine timbers, 165,000,000 cubic ft.
7. Distillation, 1,250,000 cords.

UNITED STATES FOREST SERVICE.

1. Historical.
   a. In 1876 Dr. Franklin B. Hough made special agent.
   b. In 1881 Division of Forestry created.
   c. In 1901 Bureau of Forestry established.
   d. In 1905 Care of National Forests added and the whole named Forest Service.
2. Forest Reserves.
   a. By Harrison, 13,416,710 acres.
   b. By Cleveland 25,686,320 acres.
   c. By McKinley 7,050,089 acres.
   d. By Roosevelt 148,346,924 acres.
   e. By Taft 435,517 acres added; 2,037,645 acres eliminated. Total Reserves, 192,931,197 acres.
3. Income from forest lands in 1910.
   a. From grazing, $986,909.
   b. From timber, $1,043,428.
   c. From special uses, $59,810.
   (25% of gross receipts spent for roads and schools of forestry in states where forests are located.)

WORK OF SYLVICULTURE

MANAGEMENT OF NATIONAL FORESTS.

1. Allows cutting of mature timber only.
2. Gives fire protection.
3. Aims at forest reëstablishment.
4. Provides forest schools.
5. Studies the use of timber.

OBJECTS OF FOREST BUREAU.

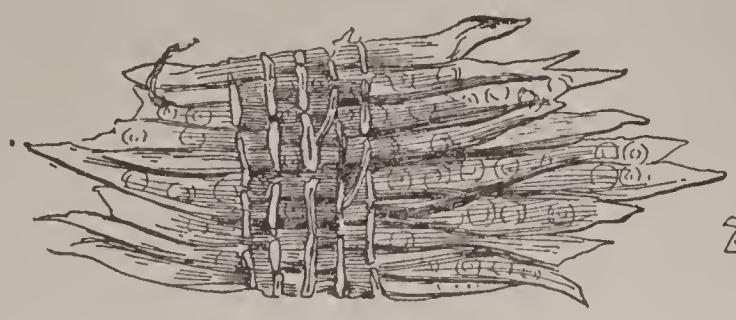
1. To produce commercial timber.
2. To regulate the flow of streams.
3. To prevent destructive lumbering.
4. To promote tree planting and growth.
5. To secure private, state, and national forest reserves.
6. To suggest the best methods of producing commercial timber and of restoring desirable climatic conditions. (7,400 acres planted to Douglas fir chiefly in 1910; 45 government nurseries supply 18,000,000 trees per year. See preceding matter on Forests in the United States.)

SYLVICULTURE INVESTIGATION.

1. Now partly experimental.
2. Supported by the national government. Much individual and state assistance given.

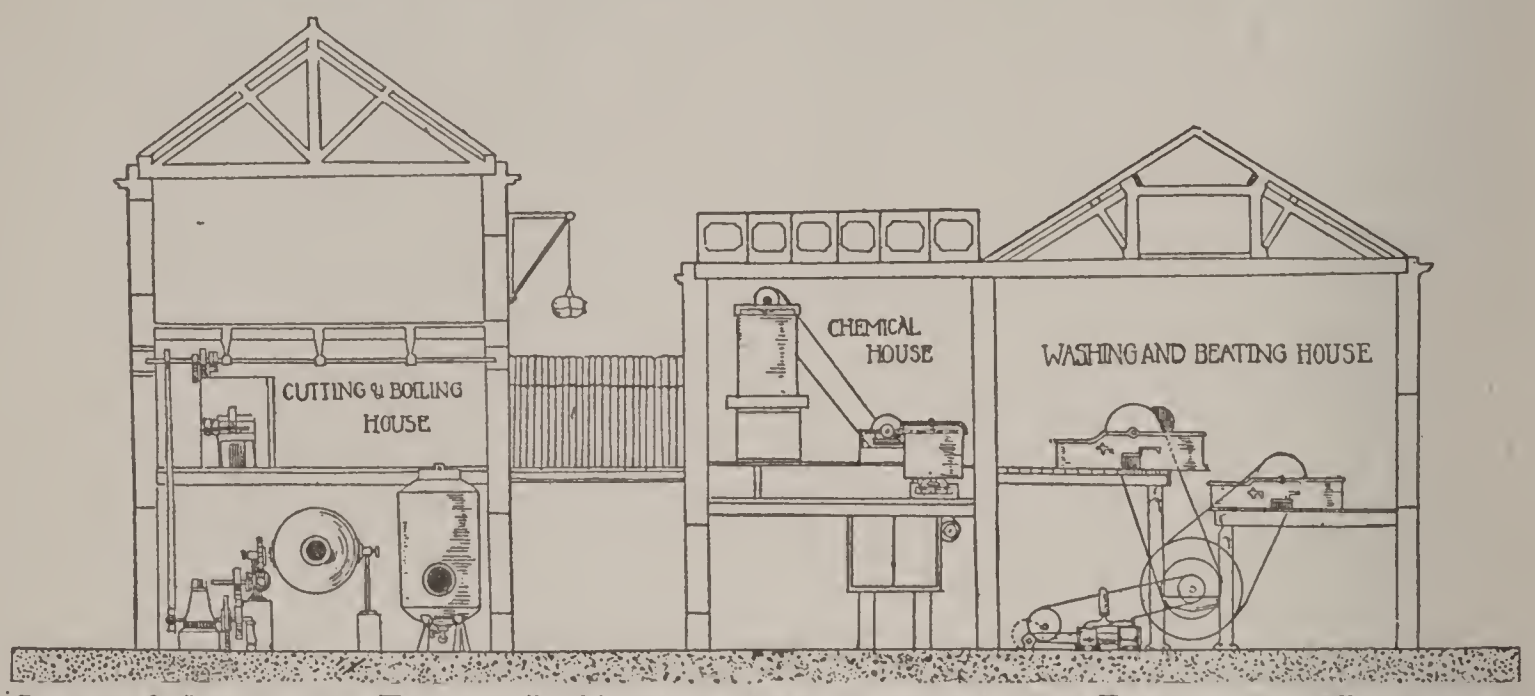
COÖPERATION.

1. Foreign countries freely given the advantage of their experience.
2. The United States government prompt to show its realization of the importance of the forestry problem.
3. States give aid.
   a. They examine forests, study problems, pass helpful laws, etc.
   b. They share the cost.

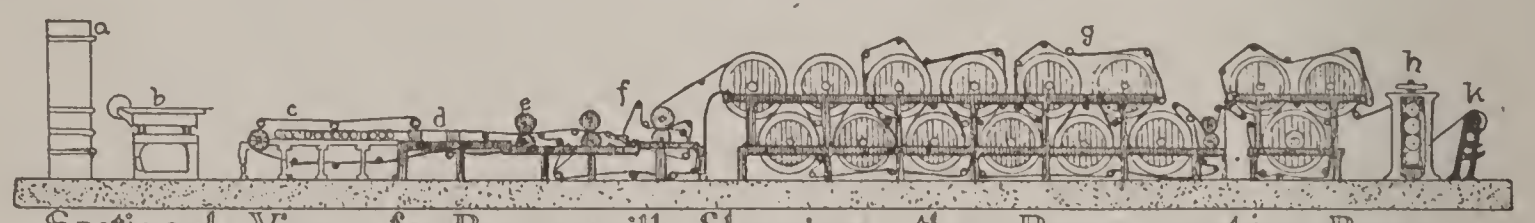


Mechanical Wood Pulp.
Bundles of Fibres (Magnified).

Rags in Various Stages.

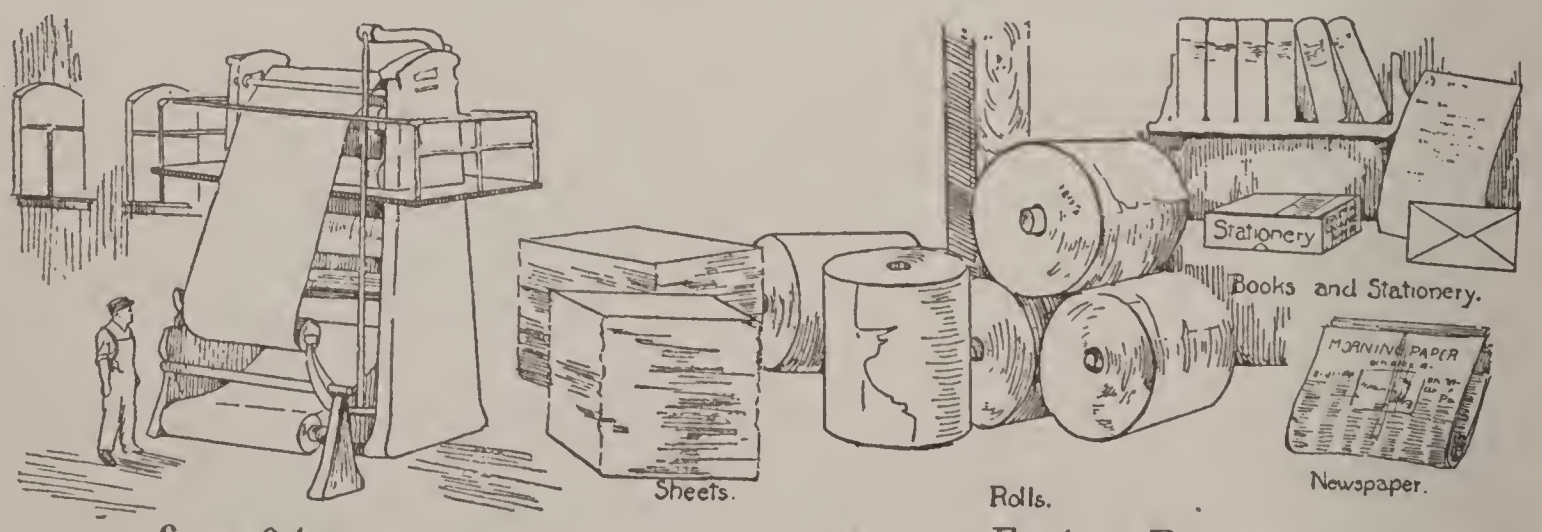


Sectional View of a Paper-mill, Showing Arrangements for Preliminary Treatment.



Sectional View of a Paper-mill, Showing the Paper-machine Room.

a, Stuff-chest; b, Strainers, c, Wire; d, Suction-boxes, e, Couch-rolls; f, Press-rolls, g, Drying cylinders, h, Calenders; K, Reeler.



Super-Calender

Sheets.

Rolls.

Books and Stationery.

Newspaper.

Finished Products.

Paper Making.

4. Private owners render valuable assistance.
   a. They examine timber, suggest management and protection, etc.
   b. Cost is often borne by an owner.

STUDIES AND TESTS FOR UTILIZING FOREST PRODUCTS.

1. In the University of Wisconsin.
   a. To determine properties of American woods.
   b. What treatment prevents decay.
   c. What new wood may be used for paper pulp.
   d. How to utilize the waste of all operations.
2. In the office of Wood Utilization, Chicago.
   a. Economy in using wood in manufactures taught.
   b. Kind, quality, and cost in different states studied.
   c. Where produced and percentage of waste examined into.
3. In the Western States there are centers at Denver, San Francisco, and Portland.

STATE POLICIES.

1. New York.
   a. 1,600,000 acres in Adirondack and Catskill Mountain ranges set aside.
   b. Fire protection established.
   c. In 1909, 1,005,325 forest tree seedlings distributed to private owners.
   d. Waste lands being planted to forests.
   e. Training school at Cornell University.
2. Pennsylvania.
   a. 920,000 acres purchased; more may be purchased at $5 an acre or less.
   b. Located so as to protect the water supply of cities.
   c. Scientific management, fire protection, mature timber only cut and sold.
   d. Training school for forest rangers maintained at Mont Alto.
   e. Distributes trees for planting, advises private owners.
3. Minnesota, Wisconsin, Michigan, Montana.
   a. Each state has more than 200,000 acres.
   b. Fire protection provided, open land planted, mature timber cut and sold, etc.
   c. Private forests protected, seedlings distributed, etc.
4. Ohio, New Hampshire, and Vermont. Advice given and seedlings distributed.
5. Other states giving protection: Maine, New Hampshire, Virginia, Massachusetts, Connecticut, New Jersey, Maryland, Oregon, California.

FOREST SCHOOLS AT UNIVERSITIES.

Special instruction in Forestry is given by Yale, Harvard, Michigan, Minnesota, Nebraska, Montana, and other universities.

References to the body of this work: Articles on FORESTRY, FOREST SERVICE, EUCALYPTUS, PINE, LUMBERING, FLORIDA, FURNITURE, PAPER, DISTILLATION, TURPENTINE, COOPER, RAILROAD, TIMBER, etc.

THE FISHING INDUSTRY

DISTRIBUTION OF WORLD'S FISHING GROUNDS.

1. In the north Atlantic.
2. In the north Pacific.
3. Inland: lakes and rivers.
4. Factors favoring concentration of fish in certain localities.

KINDS AND DISTRIBUTION OF WORLD'S PRINCIPAL COMMERCIAL FISHERIES.

1. Oysters, where?
2. Salmon, where?
3. Cod, where?
4. Shad, halibut, herring; where?
5. Lobsters, crabs, clams; where?
6. Sponge, where?
7. Whale, where?
8. Seal, where?

DISTRIBUTION OF INDUSTRY IN THE UNITED STATES.

1. By groups of states.
   a. New England; value of product, chief fish.

b. Middle Atlantic; value of product, chief fish. What proportion of the total United States product is produced by those two groups?
c. Alaska; value of product, chief fish, proportion produced.
d. Pacific coast states; value of product, chief fish.
e. Interior states; value of product, chief fish.

2. By Alaska and individual states.
   a. Alaska.
   b. Massachusetts.
   c. Virginia.
   d. New York.
   e. Illinois.
   f. Washington.
   g. Wisconsin.
   h. Louisiana, etc.
3. Largest fishing ports.

VALUE OF INDUSTRY IN THE UNITED STATES.

1. Total for the United States.
2. By kinds of fish.
3. Oysters and salmon form what percentage of total product?

CANNING AND PRESERVING INDUSTRY.

1. Location of principal centers.
2. Factors determining location.

METHODS OF FISHING.

1. Old methods; hook and line, etc.
2. Modern; steam vessels, nets, etc.

BY-PRODUCTS FROM FISH.

1. Ambergris (used in making perfumes).
2. Whalebone (used in ladies' clothing).
3. Codliver oil (used as a medicine).
4. Pearl (as ornaments and in manufacturing).
5. Furs (used for clothing).
6. Fertilizing material (for soil).

References in the body of this work: Articles on FISHERY, SARDINE, SEAL, CANNING, OYSTER, SALMON, SHAD, SPONGE, HERRING, COD, LOBSTER, WHALE, AMBERGRIS, WHITEFISH, HALIBUT, PEARL, CUBA, PHILIPPINE ISLANDS, CEYLON, SOUTH SEA ISLANDS, FERTILIZER, etc.

THE COAL AND IRON DISTRICTS OF THE UNITED STATES

COAL DISTRICTS OF THE UNITED STATES.

1. Anthracite region: tons available, proportion of total in the United States. (Other kinds of coal are cannel, bituminous, and lignite.)
2. Eastern province.
   a. Extent.
   b. Kinds of coal and quality.
   c. Quantity of coal available.
3. Interior province.
   a. Extent.
   b. Location of distinct regions.
   c. Kinds of coal and quality.
   d. Quantity of coal available.
4. Gulf province.
   a. Extent.

MINERAL BELTS ABOUT THE GREAT LAKES

b. Kinds of coal and quality.
c. Quantity of coal available.

5. Rocky Mountain and Northern Great Plains provinces; extent, kinds, quality and quantity of coal.
6. Pacific province; extent, kinds, quality and quantity of coal.
7. Significance of distribution.
   a. To commerce and to transportation agencies.
   b. To manufacturing interests and growth of cities.
   c. For domestic use.

IRON ORE DISTRICTS OF THE UNITED STATES.

1. Lake Superior region.
   a. Leading ranges.
   b. Kind and quality of ore.
   c. Quantity of ore available and length of time it will last.
   d. Relation to coking coal and steel manufacturing centers.
   e. Relation to water transportation.
   f. Supplies what percentage of total United States production?
2. Birmingham region.
   a. Kind, quality, and quantity of ore produced.
   b. Significance of proximity of coal, ore and limestone.
   c. Supplies what percentage of total United States production ?
3. Other iron ore districts.
   a. Kind, quality, and quantity of ore.
   b. Relative importance as producers.
4. In what form is the ore of each section?
5. How is iron changed to steel? What is the Bessemer process?
6. What is pig iron? Cast iron? Malleable iron? Wrought iron?
7. When manufactured into commercial iron or steel, to what uses are iron ore products put?

METHOD OF STUDYING COAL

NATURE OF COAL.

1. What it is.
2. Steps or processes in coal making.
3. Conditions favoring accumulation of coal-making material. What is its origin?

KINDS AND THEIR RELATIVE VALUES.
Stages from peat to black diamond coal.
RELATIVE VALUE OF ANNUAL PRODUCTION of coal, iron, copper, gold, silver, etc., in the United States.
IMPORTANCE OF COAL.
1. As a producer of power.
   a. For manufactures.
   b. For transportation.
   c. For the navy and national defense.
   d. For mines.
2. For heat and light (gas, electricity, etc.).
3. For iron and steel industries.
4. For domestic use (cooking, washing, etc.).

LEADING COAL PRODUCING COUNTRIES.
Show the relative importance of each.
PRODUCTION IN THE UNITED STATES.
1. By regions; relative importance, kind of coal. Map.
2. By states; relative importance, kind of coal.

RESOURCES OF THE UNITED STATES AND THEIR CONSERVATION.
1. What we have.
   a. By provinces. (See "Coal Districts" above.)
   b. By kinds of coal.
   c. How long will it last at the present increasing rate of consumption? What then?
2. Substitutes for coal and their relative values.
   a. Water power. Where? In what way?
   b. Petroleum and natural gas.
   c. Waves and tides. How?
   d. Wind power. Illustrate.
   e. Sunlight. Explain.
3. How to conserve what we have; how to stop waste.

References in the body of this work: articles on COAL, PENNSYLVANIA, OHIO, INDIANA, ILLINOIS, KENTUCKY, TENNESSEE, ALABAMA, COLORADO, CHARCOAL, COKE, PITTSBURGH, BIRMINGHAM, ALABAMA, FUEL, ELECTRICITY, etc.

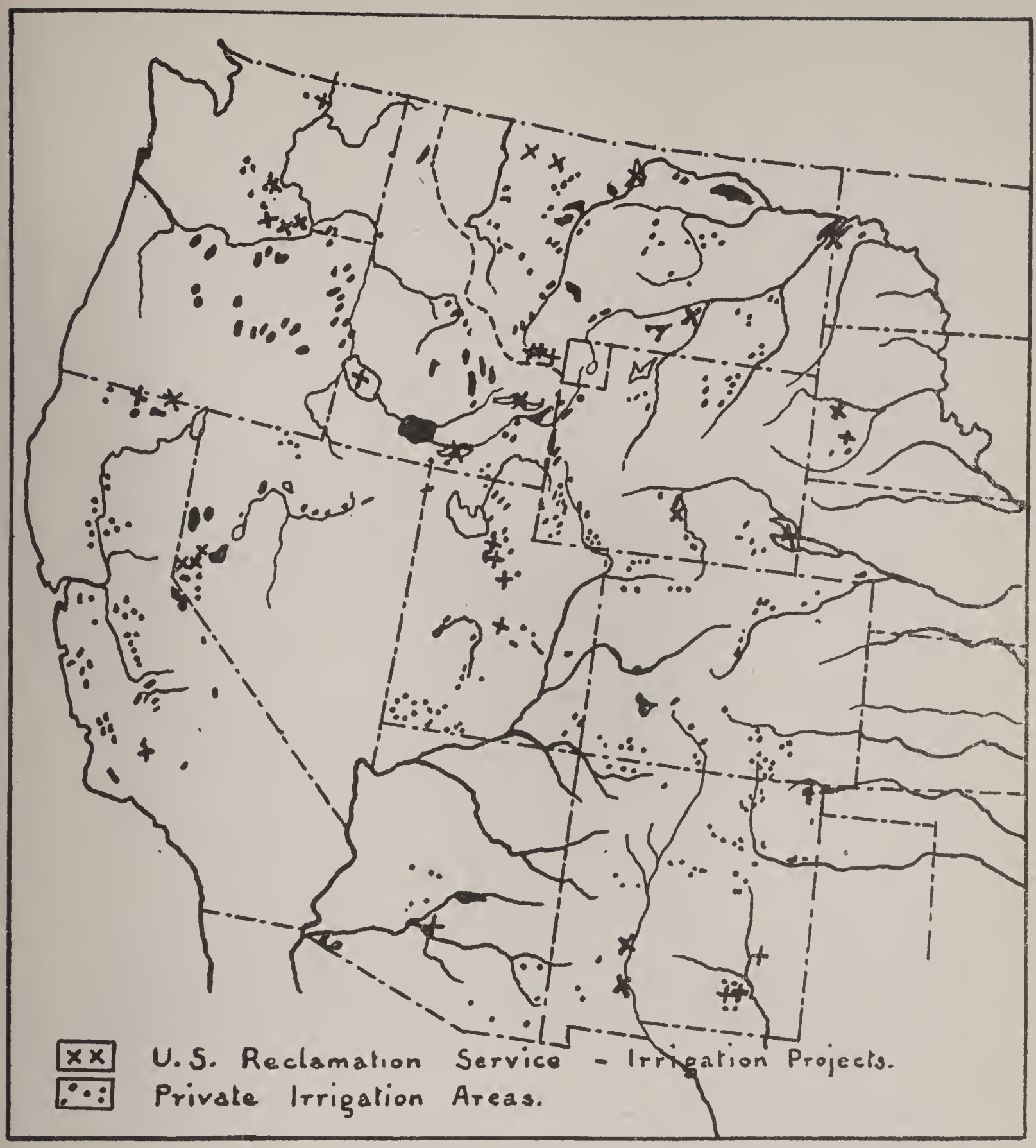
RECLAMATION

IRRIGATION—DRAINAGE

IRRIGATION IN ANCIENT TIMES.
In Egypt, Phoenicia, Assyria, China, Mexico, Peru, United States.
EXTENT OF MODERN IRRIGATION.
In Spain, France, Switzerland, Belgium, Denmark, Austria-Hungary, India, Ceylon, Australia, Egypt, Algeria, United States, Mexico, Argentina, etc.
CONDITIONS INVITING IRRIGATION.
1. Arid and semi-arid regions.
   a. Presence of rich unleached soil.
   b. Abundance of sunshine and warm temperature.
   c. Presence of permanent streams.
   d. Large returns per acre.
   c. Suitability of ground for reservoirs, ditches, etc.
2. Humid regions.
   a. Failure of rains at certain times.
   b. Increased production per acre.
   c. Increased value of land.

SOURCES OF WATER FOR IRRIGATION.
From rivers, springs, wells.
RELATION OF FORESTS TO IRRIGATION.
1. Check waste of rain and melting snow.
2. Check erosion of natural basins and help to fill reservoirs and canals.
3. Encourage rainfall and modify the climate.

IRRIGATION IN THE UNITED STATES.
1. Leading states practicing irrigation.
2. In the arid west.
   a. Area requiring irrigation.
   b. Area capable of being irrigated, and proportion of total area.
   c. Factors limiting irrigable area.
3. Government aid.
   a. How it helps the settler.
   b. Projects completed and under way.
   c. Description of one project, e. g., Roosevelt or Shoshone dam.
4. Importance of Irrigation.
   a. Will increase crop area and production.
   b. Will make homes for millions of people.
   c. Will develop otherwise desolate areas industrially and commercially.
   d. Will open the way for new crops, orchards, etc.



OBJECTS OF LAND DRAINAGE.

1. To get rid of surplus water.
2. To add to productiveness of the soil.
3. To bring new areas under cultivation.
4. To increase the amount and kinds of crops grown.
5. To affect the climate.
6. To encourage farming, immigration, etc.

DRAINAGE AREAS.

1. Lowlands in Louisiana, Mississippi, and Texas.
2. The Everglades in Florida.
3. The Dismal Swamp in Virginia.
4. Special sections of various other states.

BENEFITS FROM DRAINAGE.

1. Reduces the violence of floods.
2. Assists the disintegration of the soil.
3. Reduces the danger from frost.
4. Facilitates the production of better root crops.
5. Often prevents soil heaving.
6. Aids soil fertilization.

In the body of this work will be found interesting and instructive articles on IRRIGATION, DRAINAGE, the various countries named herein, CLIMATE, RAIN, SOIL, EVERGLADES, DISMAL SWAMP, CALIFORNIA, LOUISIANA, FERTILIZER. In what way do Irrigation and Drainage bear upon the study of geography?

TRANSPORTATION

RAILROADS.

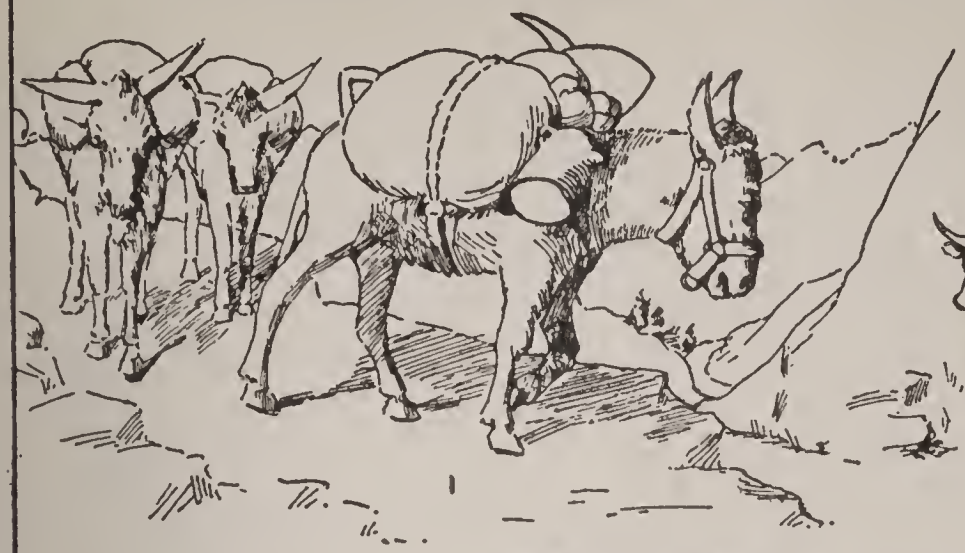
1. In the United States.
   a. When and where first road was built and character of its equipment.
   b. Equipment of a modern steam or electric railroad.
   c. Their distribution.
      (1) Areas with many roads and areas with few roads.
      (2) Factors determining distribution.
   d. Growth by decades; factors encouraging. (See CENSUS.)
   e. Mileage in principal states compared with Great Britain, Germany, France, etc.
   f. What relation have railroads to commerce? To industrial development?
2. In Canada, Mexico, and Central America.
   a. Distribution.
   b. Equipment and efficiency compared with that in the United States.
3. In Europe.
   a. Distribution.
   b. Mileage and equipment compared with that in the United States.
   c. Efficiency and freight rates compared with those in the United States.
4. In Asia and Africa.
   a. Distribution.
   b. Efficiency.
5. In South America.
6. How are railroads and railroad rates regulated in the different countries?
7. Why are they regulated?

ON THE OCEAN.

1. Types of vessels first used.
2. Invention of the steamboat and its first trip.
3. Types of modern steamers and sailing vessels; speed, capacity, etc.
4. Location of the most traveled routes. Map.
5. Factors determining routes of sailing vessels and steamers.

STANDARD TIME BELTS

PROGRESS IN TRANSPORTATION



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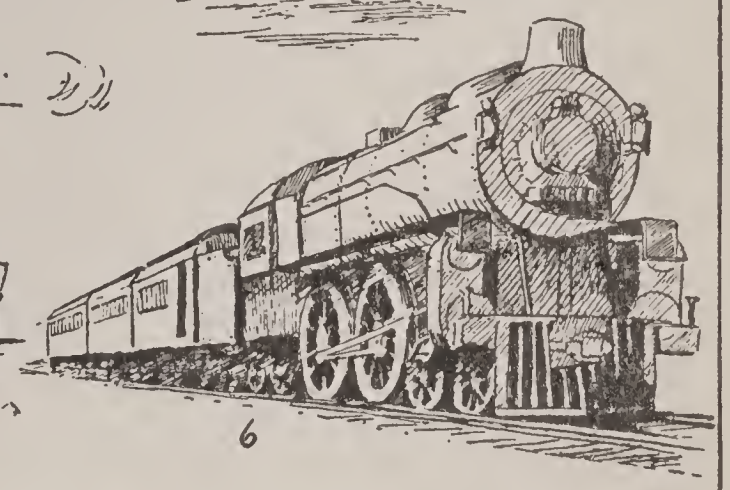

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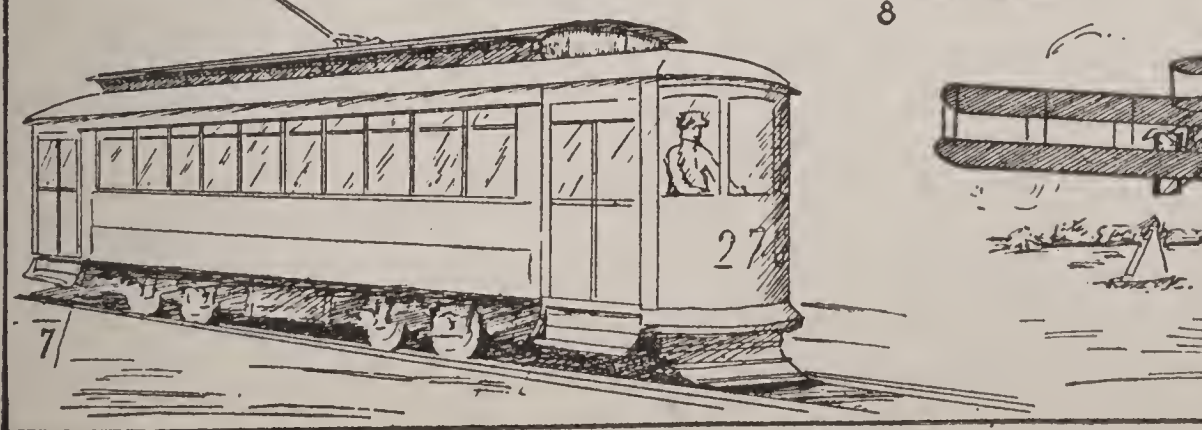

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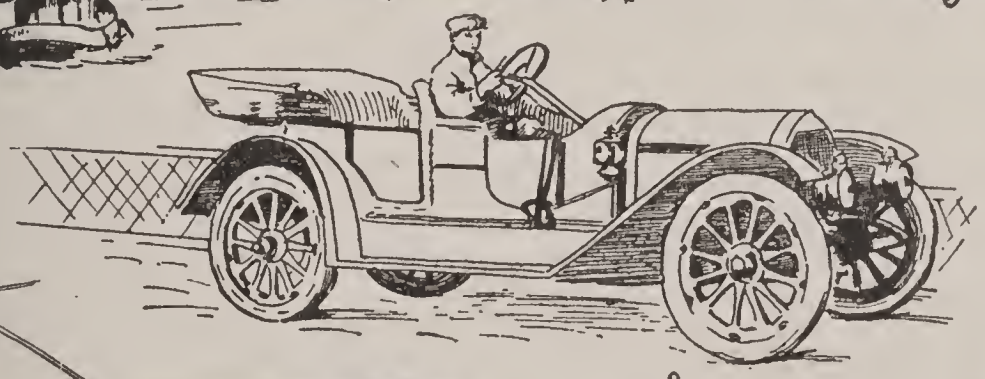

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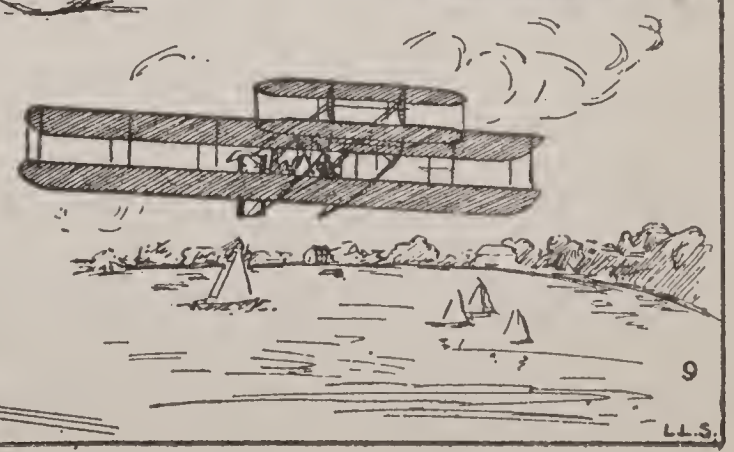

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6. Freight rates compared with rates on land.
7. Principal nations using oceans as highways.
8. Importance of inter-oceanic canals: Panama, Suez, etc.
9. Is there any regulation of oceanic rates?

On Inland Waters.

1. The Great Lakes.
   a. Vessels compared with those on the ocean.
   b. The most traveled routes and factors determining them.
   c. Relative importance of their commerce.
   d. What is carried most? How do railroads and the lakes compare as transportation routes?
2. Rivers of the United States.
   a. The principal navigable rivers; limits of navigability.
   b. Type of vessel compared with lake and ocean.
   c. Relative importance of their commerce; influence of railroads; of canals.
   d. Their commerce compared with that on European rivers.
3. Canals of the United States.
   a. The principal canals; type of boat, limits of utility.
   b. Commercial importance compared with European canals.
   c. Purposes.

On Deserts, Mountains, Etc.

1. Camels, mules, buffaloes, etc.
2. Human carriers.

Carriers.

1. Is there more than one kind of carrier? Explain.
2. What obligations does the law place on carriers?
3. What liabilities must they assume?
4. What difference between an express company and other carriers?
5. Why is the law so strict upon carriers?
6. What kind of transportation does the postoffice do?
7. Have transportation facilities anything to do with the development of a section of country?
8. What connection has this with the study of geography.

Read the article on Railroads, Canals, Panama Canal, Business Economics, Commerce, statistics under the several countries named, Steamship, Steamboat, Lighthouse, Compass.

PHYSIOLOGY, HYGIENE, SANITATION

THE NEW ERA

Perusal of newspapers and magazines with their revolting accounts of human folly, disease, and crime, convinces many people that this is the worst age the world has ever seen and that it is growing worse all the time. That is a mistake. The world is growing better, for the very reason that its evil is being dragged into the light, the causes of its disease and misery given wide publicity, and the weak and ignorant are being helped and instructed more and more zealously by all who love their fellowmen. There is nothing which evil in any form, whether disease germ or vice, hates so much as light and air.

When you are tired of reading about murders and suicides, disease, filth, and misery, refresh your thought and renew your courage by reading of the splendid movements now on foot in every direction to drive out all kinds of evil from the world. Try to catch that infection and then—lend a hand.

The central idea of the New Era is the value of the individual as an element of society. Other ages have also placed a high value on the individual, but only partially and always selfishly. Human beings have had value as slaves, as fighters, as workers, as playthings—now for the first time are they valued as human beings. The spirit of the New Era cries to every man, woman, and child: "You are the greatest thing in the world. For you was the Universe created. Each one of you is an important part of God's Great Plan."

And the second idea of the New Era is like unto the first—man is a unit, physically, mentally, morally; whatever is bad for his body is bad for his mind and morals, and vice versa.

Therefore science works hand in hand with religion, ethics, civics, industrial efficiency, and with every other form of progress when she ferrets out the hidden causes of physical evil and teaches each individual how to protect himself and others from disease.

THE FIRST STEP

The first step in that self-protection which goes under the names of Sanitation and Hygiene is Know Thyself.* A large part of the world's sickness is the result of ignorance, most of the rest is due to indifference. So Anatomy and Physiology step forward to introduce us to ourselves; then come Hygiene and Sanitation to dispel ignorance of the requirements of health and to substitute for indifference a sense of our personal responsibility. For everyone of us is his own and his brother's keeper, and we shirk the responsibility at our peril.

All that is due to the dawn of the New Era, which is only a scientific application and extension of the Golden Rule. What the full daybreak shall be will depend on what you and I do to help it along.

*This is not a new idea—simply a new application. Over the portico of the temple at Delphi, where was located the most famous oracle of ancient Greece, was inscribed this sentence: γνοθι σεαυτον (gnothi seauton), Know Thyself.

But the subject is too big to permit of full treatment in this place. An elementary knowledge of Anatomy, for instance, must be taken for granted, the reader being referred to the many excellent books devoted to that subject. Physiology can be taken up only in brief—just enough to prepare the way for the all-important message of Hygiene and Sanitation.

PHYSIOLOGY

The human body has been compared to all sorts of things; one of the best comparisons being to a republic. Modern science has revealed that the body is an organization of many subordinate parts, all closely coördinated, all controlled and energized by many sub-centers of nerve force, all dominated by one central, supreme Will. Failure to realize and act upon that great truth is the cause of a large part of the disease and misery in the world. How many have imagined that the way to be successful and happy is to gratify the body while neglecting the mind and morals! Others have exalted the mind and contemned the body, while still others have actually sought piety and spirituality at the expense of sustenance.

Modern science exposes the fallacy of all such partial views, and teaches that man is a unit, requiring the best condition of every organ and function in order to secure the highest efficiency and the most enduring health, happiness, and success.

THE HUMAN MACHINE

The body is often likened to a machine. There is a certain degree of truth in that likeness, but the simile is a dangerous one if pushed too far. What ails a great many people is the mistaken notion that they can safely treat their bodies as machines, for they fill up their stomachs as if stoking an engine boiler, run under forced draft day and night, and do a thousand and one things which even a boiler could not stand.

There is just one rule to follow if you would be healthy and happy—do as Mother Nature dictates. Just as surely as her commands are disobeyed she punishes the offender, not always at once, but in the end she is inexorable.

But how? Many plead ignorance of the laws of health in order to excuse their physiological sins. Whatever may have been the case in other countries or in other times, there can be no excuse today for any intelligent person habitually misusing the body. Nature is prompt in expressing her disapproval through the medium of pain and sickness, and her teaching is reinforced by the warnings of all physiologists in books, articles, and addresses without number. As a matter of fact, very few live up to the knowledge which they have of the laws of health. If all would do so, many doctors would be compelled to go out of business.

MODERN HYGIENE AND SANITATION

These terms may be summed up in one word—Prevention. Essentially it is a new idea, for ancient hygiene and sanitation—what little there was of it—took no account of the causes of disease, only of the effects. The only causes considered by the men of old time were demons, witchcraft, and "the gods"; but modern science has traced to their lurking places all the infinitesimal foes of health and has hung a flag of warning over each.

Looking through the eyes of the scientist we see water, earth, and air teeming with microscopic life; even our own bodies are the homes of countless myriads of bacteria. All these germs are in constant motion, each seeking persistently to follow out its natural tendencies. From our point of view most of them are beneficent; but many are harmful, and some are deadly. Such is the infinite importance of the infinitely small.

GERMS, MICROBES, BACTERIA, BACILLI

Those words have appeared so frequently of late in the public prints that everyone has seen them, but few know their exact meanings. In fact, they are commonly used as meaning the same thing, but there are important differences between them which should be understood.

Modern science has revealed to us through microscope and test-tube a whole world of teeming life never before suspected. It is infinitesimal in size but enormous in importance. For therein are found the issues of life and death, of health and disease; and no one can afford to remain ignorant of the essential facts. This microscopic life is both animal and vegetable, and diseases are being classified by scientists according to the nature of the germ which is the cause of each disease. For instance, consumption and diphtheria are due to the activity of microscopic vegetable organisms; most other infectious diseases are caused by animal organisms.

Germ is the most general term covering all microscopic organisms, vegetable or animal, benign or malign. A *microbe* is a form of bacteria, but this name is usually applied to the malign type. Bacteria are vegetable organisms, of which bacilli are a variety, such as the "rod-shaped" germ characteristic of tuberculosis. The majority of bacteria are not producers of disease. Their chief function is to destroy or to change the nature of animal and vegetable matter. But certain bacteria are credited with originating contagious and infectious diseases.

These parasitic bacteria are fond of our food, and too fond of us. Consequently our problem in life is to eat and not be eaten, and right here is the supreme importance of modern physiology and sanitation. These sciences have revealed the real cause of the awful and mysterious plagues which have afflicted mankind—consumption, typhoid, smallpox, diphtheria, yellow fever, malarial fever, bubonic plague, cancer, lockjaw—all caused by germs.

Many people have read so much about microbes and about their invisibility being equaled only by their swarming malignancy, that such persons have become morbidly terrified. Some go to the extreme of declaring that it is useless to try fighting such foes—that it is all luck anyway whether we kill the germs or the germs kill us.

Neither view is wise. While it is true that modern science proves that our food and drink swarm with germs, and that myriads are constantly seeking a vulnerable spot where they may enter the body to start something, a way of escape is at the same time pointed out. One of the most vulnerable spots is the mouth, through which many deadly germs, especially of lung diseases, find easy entrance. Therefore, keep your mouth shut except when eating or talking. Never allow anyone to talk right into your face, as so many have a bad trick of doing; stand them off at least a couple of feet anyway.

MILK, THE HOME OF BACTERIA

Milk is a peculiarly favorable "culture" for germs, and through that food they can attack man when he is weakest—in infancy. The sensible thing to do is to surround our milk supplies with every possible safeguard, and that is what the most intelligent communities are doing. In 1910 Chicago consumed more than 9,000,000 gallons of milk—including, incidentally, two carloads of milk dirt. Vigorous measures are now being taken to reduce this proportion of dirt.

Health boards, especially in the great cities, are waking up to the terrible importance of milk contamination, and the more reputable milk purveyors themselves adopt the most stringent precautions. But that is only a beginning. Milk may be free from disease germs when sold, and yet become deadly to an infant by exposure or careless use. To prevent that disaster, general public education in infant feeding is one of the great tasks of modern hygiene.

Along that line a grand work for humanity is being done by many agencies, both public and private. In the cities laws have been passed requiring milk to be up to a certain standard of purity and food value; some require all milk to be pasteurized, delivered in sealed bottles, and obtained from inspected and certified sources. Social settlements and other private philanthropies supply certified or pasteurized milk to the poor at a minimum cost, with free ice in summer; visiting nurses go to the homes of the ignorant and careless to rescue infants from contaminated milk, served in filthy vessels or exposed to dust and flies; mothers' classes are instructed in the details of the sanitary feeding and care of their children; free sanitariums are supported by charitable women, and even crêches and babies' tents are established in the slums, with either of which working women can leave their children for scientific care and feeding during the day (or longer, if sickly).

Modern social science reaches out also to the farm whence comes the milk, where a degree of unsanitary ignorance and indifference is often found rivaling that of the city slum, and causing deadly epidemics in both city and country. Farmers are taught and required to keep sanitary stables and provender, clean cows, clean milk pails and milkers, cool storage, perfect protection from dust and flies from cow to customer, quick delivery, etc. Some large milk companies require dairymen and farmers to sign a contract pledging attention to all those details. It is the first ray from the rising sun of a grand New Era.

SANITARY WATER SUPPLY

Care for the water supply is another great problem of sanitation. That requisite of life, cleanliness, and health can easily become the carrier of the most deadly germs, especially of typhoid fever. Even "the old oaken bucket, the moss-covered bucket, which hung in the well," is eyed suspiciously by modern science. Is your well near an outhouse or barnyard; is it on the slope of a hill below the dwelling or a foul pond; is it wide open to the reception of dead or living animal matter; is it where you empty wash water or slops? Under any of these conditions there is always the possibility of an outbreak of typhoid fever in your family. Remember that clear water is not necessarily wholesome water, and that disease germs often find their way long distances in the most astonishing manner.

In great cities the water problem is still further complicated by a third great problem—sewage disposal. Since that involves great expense and complicated engineering work, it is a problem which the private citizen can help to solve only by doing his full duty in voting for the most honest and capable officials to be obtained. Fortunately, however, he can protect himself and his family from impure water if public officials fail to do it. It is a simple matter to boil or filter all drinking water, and it should always be done if there is the slightest suspicion of impurity.

PUBLIC DRINKING CUPS

One of the encouraging signs of the times is the war waged on public drinking cups of all kinds. In some states they have been abolished by law from railroad trains and stations, from stores, schools, and all other public places. Even churches have of their own accord displaced the old communion goblet with small individual cups of glass or metal.

Of course all those changes have caused some inconvenience and expense, but people are learning rapidly to adapt themselves to the situation and to carry their own drinking cups. However there are too many places to which that important reform has not yet penetrated, and one of them is the country school. Here is still to be found the open waterpail, a catch-all for the dust flying in the air; with the never-washed old dipper from which everyone drinks—sore mouths, sore eyes, decayed teeth, tuberculous lungs, and what not. Think of it! Do something about it!

But in reforms good judgment is quite as important as zeal, otherwise the reform

may defeat itself. A good example is the "bubbling cup" so recently installed in many cities and towns. Some of the cups are all right, but many of them are poor and are worse than none. The writer of this article has visited a town of 2,000 inhabitants where the citizens doubtless consider themselves very sanitary because they have three "bubbling cups" on the streets. As a matter of fact those three "sanitary" cups are as unsanitary as anything which could be devised, being of rough iron, incrusted with dirt and slime except where the lips of the children have rubbed off some scum from the iron.

"Bubbling cups" should not be installed unless they meet several conditions. They should be bulbs of smooth porcelain, so large that they cannot be taken into the mouth, and perforated by several holes. Through those holes the water should spurt up to a height of one inch at least. When economy of water is desirable the flow need not be continuous, but it may be shut off by an ordinary spring valve when not in use.

SEWAGE AND GARBAGE

The sanitary disposal of sewage and garbage is popularly supposed to be a city problem exclusively; but as a matter of fact the conditions along these lines are often worse in towns and in the country, partly from ignorance and indifference, partly from lack of the funds and the expert knowledge required for solving sanitary engineering problems. Even on the farm the outbuildings are too often unsanitary and located near the house or near and on a slope above the well. There is no excuse for such criminal carelessness where ground is plenty and cheap. Of course they should be at some distance from the well, with no possibility of drainage into it.

All that has been said above in regard to sewage and water applies with still greater force to the town. The wise citizen will not depend too much on official provision for the health of his family, but will investigate for himself; will search out the sources of the town's water supply and the outlets of its sewers, and will ascertain whether outlet pipes drain easily into the sewers and whether there is an outward flow in the latter. He will see to it that the house garbage is disposed of promptly. If the town will not remove it, he must bury or burn it himself.

The patriotic citizen, whether in country, town, or city, will not maintain on his own premises any nuisance which may serve as a breeding place for germs, flies, or mosquitoes. If his neighbors do, he will try to have the nuisance abated; failing that, he will protect himself by a thorough screening of every door and window, and by "swatting" promptly every fly and mosquito which comes in. Chief among the nuisances alluded to are the uncovered, unemptied garbage can or box, the manure pile, the stagnant pond, the loosely covered cistern, and the unsanitary privy. In all of those nuisances flies, mosquitoes, and disease germs breed zealously, and they flit joyously back and forth between the filth and the family food unless prevented by good screens.

Intelligent and careful people have the screen habit well fixed, which is a great forward step in the last quarter of a century; and yet how often is it possible even now to find homes swarming with insects distributing filth and disease!

The public needs persistent warning and instruction on the menace of the manure pile and of the stagnant pond. The first is the favorite breeding place of flies, the second of mosquitoes, for the reason that they are so seldom disturbed. All manure piles should be removed at least once a week to give the flies' eggs no time to hatch out, or else they should be treated thoroughly with strong germicides. Stagnant ponds should be drained off or given a thin coating of kerosene. Cisterns and water tanks of all kinds should be so well screened that no mosquito can lay her eggs there. To prove the wisdom and truth of all this precaution it is necessary only to point to what the United States government has accomplished in banishing flies and mosquitoes from the Isthmus of Panama, converting one of the pestholes of the world into a healthful dwelling place.

VENTILATION, HEAT, AND LIGHT

These are chiefly urban problems, but they also concern the town or country dweller, especially in the case of public buildings such as schools, churches, courts, and amusement halls. For the private dwelling, wherever it is, there is no better ventilating arrangement than the wide open fireplace with a roaring fire of logs. But not everyone can have a big fireplace; what is the next best thing?

That is a difficult question to answer, because so much depends on the house, the occupants, and the finances. Of course it is very easy to say "All you have to do is to secure a constant outgo of foul air and income of fresh, warm air, so that each occupant shall be sure of getting 400 cubic feet of pure air daily." But when it comes to a practical application of that theory to your own home, it is not so easy. The following hints will be found helpful.

In a house where the rooms are large, the occupants few, and the heating apparatus efficient, during very cold weather the automatic leaking in of outside air through the cracks of doors and window frames will usually furnish sufficient ventilation where the family sits. That statement presupposes that no exceptional sources of foul air are present, such as gas or oil stoves to eat up the oxygen in the air, leaky gas pipes, or smoky meerschaums and cigarettes. If the rooms are small or many persons are present, all inside doors should be thrown open so far as possible. If you wish to test whether the air in a room is getting foul, the simplest way is to step outdoors, fill your lungs with fresh air, and then step back quickly into the suspected room. If the odor which greets your nose is offensive you may be pretty sure that the room needs ventilating.

In weather which is cold without being bitter, and also in case of sickness, a good way to obtain ventilation without creating a dangerous draft is to knock together a simple frame of four sticks, nearly as long as the window sash is wide, and about one-half foot across. Then make a cheesecloth bag to fit, put the frame inside, and insert the contrivance in the open window frame, bringing the sash down to it. That may be done at top or bottom, and the bags can be washed when soiled. But avoid drafts when sitting; they are dangerous.

At some time during the day each room should be thrown open to the outside air even in the coldest weather, especially the bedrooms. For the latter there can be no cast-iron rule. Of course vigorous persons should sleep with the bedroom window partly open in all weathers, but others do it in bitter cold nights at great risk. They should have plenty of pure air, but the ventilation should be more indirect than a wide-open window in the same room. Many have been killed by following blindly the theories of "fresh air fiends."

No one should dress or undress in a freezing cold room. Because no member of the family wants to start the stove or furnace early on a cold morning, the whole house is freezing cold just at the time when warm rooms are most needed—before breakfast. Results are chills, colds, irritability, and family quarrels, bronchitis, pneumonia, consumption, death, and other "mysterious dispensations of Providence." Contrive some way of heating your dressing room, at least.

This naturally suggests the much mooted question of the cold water bath. Do not follow any crank's advice, but find out whether it agrees with you. If you can plunge into cold water, take a brisk rub-down, and then feel like jumping over the house, every nerve and muscle strung as tense as a piano wire—why, "it's good"—do it every day. Otherwise, don't.

Many have done themselves great injury because they imagined it their duty to chill themselves with an excess of cold water or cold air. Remember—a chill without reaction is *always* dangerous, whatever the cause. Such a chill means that your nerve force has received a knockdown blow and cannot get up.

Take your bath as cool as makes you feel better. If weak and altogether

unstrung, a warm bath may be best, or even a hot one, but not too long continued. That should be followed by the cold sprinkle and vigorous rubbing if it makes you feel stronger; but be cautious about spraying cold water over the vital organs if your reaction is poor. The proof of the bath is in the bather.

SCHOOL VENTILATION

Now we come to a division of our subject which is so important and difficult as to call for separate and special treatment. The proper ventilation of other public buildings is serious and difficult enough, but at worst the audience suffers only a short time and it is composed mainly of adults.

But the exposure of tender and growing children to the habitual inhalation of disease-laden air several hours every day is a frightful thing. And the misery of it is that no thoroughly satisfactory plan has yet been devised, although thousands of teachers and trustees and hundreds of sanitary "experts" have pondered and discussed the problem. No end of patent devices have been advocated and tried. But no sooner does one expert persuade a board of education to fit the schools with an expensive apparatus which is guaranteed to withdraw foul air at the top of the schoolroom and send in warm fresh air at the bottom, than along comes another expert who maintains that such a theory is all wrong—that the carbon dioxide is all at the bottom of the room and should be taken out through holes in the floor.

That is one great problem of the city schools, with their rooms often occupied by sixty pupils, many of them untidy. Usually the country school teacher has no ventilation problem to add to her many duties in winter—the drafty school building affords plenty of fresh air and her only need is to keep the stove hot.

The latest attempt to solve the problem of heating and ventilation in the city schools cuts the Gordian knot by abolishing both. Enthusiastic advocates of the "open-air school" insist that in this they have found the best and only way of keeping children well and bright in school, and the scheme is being tried at this writing with apparent success.

Since the experiment is made with the sickliest pupils, especially the tuberculous ones, it is certainly a decisive test of the theory. It was started by private benevolence in Chicago in 1910, with the coöperation of the Board of Education. The "open air schoolroom" is on the roof. Essential features of the plan are careful inspection of the children, plenty of nourishing food, frequent short recesses, an outdoor nap after dinner, and heavy woolen clothing in cold weather, including hoods and mitts.

Any school can easily try the experiment with any room. All you have to do, if it is winter, is to wrap the children in heavy woolens, shut off the heat, and throw all the windows open. But be careful to carry out the full program. School trustees would take kindly to the innovation when it was pointed out that the saving in coal would more than pay for the extra clothing and food furnished to the children.

Teachers who do not care to try the open air school plan must do the best they can by various modifications of the usual plan. One good device is the insertion of cheesecloth ventilators in the windows at the top and bottom, as above described, provided your principal and trustees will allow it. Another device which is still simpler is to have frequent short recesses during which the windows are thrown open, but closed before the room is called to order. In Switzerland the law requires that the children be in the open air at least ten minutes every school hour. Still another good scheme is to get permission to open the schoolroom door when the air becomes perceptibly foul in spite of all possible ventilations. The halls of a school building contain a great reserve reservoir of comparatively pure warm air which is foolishly wasted in cold weather. In order to prevent pupils in the hall from attracting the attention of those in the room, it would be well to place a screen across the open door, in such a way that the teacher can see into the hall but the pupils cannot.

CAR VENTILATION AND HEATING

This phase of the subject interests all people who travel, especially the residents of large cities. For them it is a serious question, for most city workers are obliged to spend two hours daily in traveling to and from their work, and it makes a big difference in cold weather whether those two hours are to be spent in catching colds and pneumonia from drafts, or in the equally bad alternative of filling the lungs with foul air thick with every possible disease germ and nastiness. It is surprising what ingenuity is displayed in heating and ventilating public conveyances the wrong way. The usual way is to put a heater directly under each seat, throw all the ventilators in the roof wide open, and let the cold gale sweep down on the passengers. It would be better to take a hint from the hunter's wisdom. Both experience and tradition make him an expert in the art of keeping warm when resting, and *he always turns his feet to the fire.* The same principle holds good anywhere. When the body is sitting the feet are the first to suffer from cold and the last to get warm.

For a like reason the ventilation of cold cars should never be through the floor, as has been tried sometimes. Another good reason is that floor ventilation lets in quantities of dust. The ventilators should be in the roof, but there should be some kind of inside screen so that the inrushing air may not strike the passengers directly. Moreover, all ventilators should be handled with good judgment, opened only so far as necessary and never on the windward side in cold weather. The public and its advisers oscillate from one extreme to the other—either hermetically sealed cars, or everything thrown wide open.

While speaking of public conveyances it may be noted with great satisfaction that this day and generation has seen the passing of one of the most unsanitary practices of sleeping-car porters. They have been forbidden to brush the clothes of passengers inside the car, throwing a cloud of dust into the face of everyone.

SCREENS AND SWEEPING

Returning now to the home and its sanitary care, there are a few suggestions to be made which seem almost too obvious, were it not that actual observation proves that they are usually neglected even by people supposed to be intelligent. For instance, it would seem axiomatic that the object of a screen is to screen. Yet how often do we see a house or a flat well screened with the exception of one door or window, which lets everything in which cares to come in! Or else the kitchen door screen has a big hole in it; or some door screen is not kept tightly closed; or it is a common practice for members of the family to hold the door screen open for conversational purposes! It is a great deal easier to keep flies and mosquitoes out than to kill them when once in. The danger and the filthiness of flies has been well advertised by the public press.

Of course every good housekeeper knows that flies do not care to enter a dark room, and the inference is almost too obvious to state. Keep your rooms as dark as possible in fly time; and if flies get in while the room is in use, get them out by darkening the room thoroughly except one bright crack where they can go out. If that does not do the business, pay the children a penny a dozen for all the flies they can kill inside the house. It will keep them, and the flies, properly employed.

Now about dust in the home. One of the best ways to keep it out is not to let it in—same as flies. Disease germs are often brought into the house in clothing, not to mention vermin acquired in public conveyances. That is utterly inexcusable, for the means of prevention are so obvious and simple. Every member of the family should shake and dust the outer clothing thoroughly before coming into the house after traveling. Incidentally the face and hands should be washed immediately on coming in and always before eating.

Presumably every housekeeper knows how to sweep and dust. and will be prop-

erly indignant at any suggestion to the contrary. And yet, if your sweeping fills the room with clouds of dust, will you not admit that something must be wrong? Your sweeping may not be done often enough, or your broom-stroke may be too vigorous. Of course the windows should always be open during sweeping. If you prefer, it is all right to buy or rent a "vacuum cleaner," not one of those which blow the dust in, but one which sucks it out. However, the vacuum cleaner is more of a novelty than a necessity. Unless the suction is very powerful it takes up little more than the surface dirt. For really taking the dust out of a carpet or rug there is nothing equal to the good old stick and elbow combination. Of course the stick should not be so heavy as to knock holes in the fabric; a rattan beater is better. Meantime, the carpet sweeper will be found useful.

One of the greatest sanitary reforms in the home has been the abolition of that ancient abomination, the tacked down carpet, with all its possibilities for disease-germs, and the substitution of rugs on a closely matched, hardwood, polished floor. Then house cleaning becomes play. The oiled mop with long handle takes care of the dust on the floor borders with no effort at all, the sweeper takes up the surface dirt easily from the rugs, and all rugs are taken outdoors to be beaten and swept once a week. (The latter will supply excellent physical open-air exercise for the male members of the family—which they usually need, especially in the city.)

Another common source of dust in the dwelling is the furnace or the stove. A little care in putting in coal and taking out ashes will go far toward mitigating that nuisance. Of course steam or hot-water heat is dustless; but if you cannot have that, at least to see to it that the furnace and its flues are cleaned thoroughly every fall, and especially the tin boxes at the end of the flues under the floor radiators. Otherwise they become perfect dustbins.

Of course you know how to dust—with a feather duster. That only distributes dust around the room. If you wish to get really rid of dust, use a damp cloth, shaking it frequently out of window or door. Finally close the windows and outer doors tight, and in hot weather pull the shades down and keep the light out as much as possible. Do this early in the morning while the air is still cool and you will find that such a plan keeps the house much more comfortable in summer than throwing it open all day, as many do. But do what you will, the dust will filter in either winter or summer. Of course all cracks, corners, and picture rails are highly unsanitary. In the best hospitals they are not allowed, not even at the ceiling; every angle must be a curved angle. The reason is evident and excellent, but in the ordinary dwelling such sanitary perfection is out of the question. Corners, cracks, and rails are everywhere. What are you going to do about it?

Do the best you can under the circumstances. If the floors yawn with cracks, have them filled with putty until you can save money enough to have a well matched floor laid over the old one. Particularly in the kitchen and pantry, and wherever food is stored, all crevices should be filled and kept filled with putty or cement to discourage vermin. But the surest discouragement is to leave nothing for them to eat; vermin can always be starved out. For corners of rooms and staircases the metal corners on sale are excellent, provided they are made to fit perfectly tight.

FOODS

To urge the importance of good food, good cooking, and sanitary care of food seems absurd, and yet that is just where the domestic economy of so many families breaks down, even among the well-to-do. The subject is large enough to fill a book by itself, so this treatment of it must be confined to a few sanitary and hygienic suggestions.

In the first place, the family buyer should know foods and know prices. If you do not know and yet must do the buying, seek advice from someone who does

know and learn as fast as possible from experience. Most American families buy poor food values at double prices. As to just what foods should be bought, no general rule can be laid down, for the requirements of each family differ from every other. Much depends upon the age and health of members of the family, their occupations, the time of year, and the family finances. One thing, however, it is safe to say of all—American families take altogether too much stimulant, especially coffee. It ought not to be necessary to say that neither coffee nor other stimulants should be taken at all by young people, especially children, and should be used by adults in moderation.

On no account, for cheapness or any other reason, buy food of doubtful quality; only the best is good enough to put into your stomach. Poor clothes on your back won't hurt, but ill-nourished muscles, nerves, and brain simply spell slow suicide. It is easy to obtain from any public library ample literature on the subject of the comparative food values of proteids, fats, and carbohydrates, and their adaptability to various conditions. But good quality does not necessarily mean high price, as many imagine. People who do not know judge value by price, which the butcher and grocer quickly discern and act accordingly. Do not order by telephone unless you are willing to be cheated in price, quality, measure, and weight; run no account for longer than a week, and watch that sharply. It is far better to learn to market wisely and pay cash, as grandmother did. Oh, yes, it takes trouble—so does everything in this world worth having.

This is the age of the tin can, so take this advice—never buy or use a swelled can or a can having two holes soldered; it is canned death. Be especially careful of canned fish or oysters. When once a can is opened, empty all of the contents which is not to be used immediately into some clean dish or jar which can be sealed dirt-tight at least. Keep in a cool place and use as soon as possible.

Be very careful in choosing your milk supply, and especially if you have children. Look up your milk company personally. On no account trust to luck in so important a matter. Ascertain where the milk is obtained and where it is bottled, and inspect the latter at least. It is a pretty safe rule that a company which runs an unsanitary bottling place will be equally careless in getting milk from unsanitary cows in unsanitary stables. It is also pretty safe to say that any milk company which is "on the square" will welcome your inspection. Is it necessary to caution anyone that milk should always be kept in clean, dust-tight vessels and in a cool place? Even when standing on the kitchen table to be used in cookery it should be kept covered. The same is true of butter and meat. Germs of all kinds multiply in milk astonishingly.

A word about the ice-box or refrigerator. Very soon it becomes soiled and even filthy if used by careless servants, and thus it may become a nesting place for bacteria. At least once a week it should receive a thorough scrubbing inside with hot water and then be allowed to air an hour.

If you cannot make your own bread, pies, and cake, be careful where you buy them. The revelations made by health inspectors of the unspeakably filthy conditions of many bakeries are sickening. Of course it is not generally possible to inspect a bakery thoroughly, although some of the best welcome inspection; but here, just as it is in the case of milk supply, a great deal may be shrewdly surmised. If the public salesroom of a bakery is dirty, the attendants ditto, the food freely exposed to flies and dirt, it is a safe guess that the kitchen is tenfold worse. Especially avoid food cooked in a cellar. There are clean bake shops if you will take the trouble to look for them. Having found one, get acquainted with the manager and let him or her know that you appreciate that feature. Really bakers need encouragement in sanitary management when so few seem to care what they put into their mouths.

So far as possible avoid buying sticky cakes to which every particle of the dirt with which the air is filled must stick as soon as it touches them. If we could see

all that the fly sees we would be nauseated. By the same token, top-crust pies are to be preferred to open ones and hard candies to soft. Bought bread, pies, and cake should be well scraped and brushed before eating and the tags cut out. Eternal vigilance is the price of sanitation. Some day we shall attain such a height of sanitary virtue that there will be a severe legal penalty for every food purveyor who permits any unsanitary exposure of food, especially to dirt, insects, vermin, or sewer gas. In some cities men have actually been arrested and fined for spitting on the sidewalk.

HYGIENE

Hygiene is a department of sanitation, or sanitation in its more personal and physiologic aspects. The dividing line between the two cannot be defined very sharply, since they overlap at many points. It takes a lifetime to learn how to live and the last thing people seem to care for is to care for themselves. No attempt will be made to cover the whole subject—it is too large; and besides there is an abundance of excellent literature on hygiene within easy reach of everyone. Neither shall we discuss moot questions, such as the healthfulness of tobacco, beer and whiskey, corsets, hobble skirts, or fudge.

It will be taken for granted that everyone who reads this knows that he should live regularly and simply; eat nutritious food slowly and at regular hours; go to bed early and get up early; breathe through his nose; be virtuous and happy. All that and much more he and she have been told a thousand times and it is no use saying it again.

Also it is useless to warn against the microbes of kissing; you are bound to do it anyhow and take your chances. The same may be said of licking your fingers in counting bankbills, or in turning the leaves of a book or in examining documents; of carrying carfare in your mouth; of rubbing dirty hands over your face and poking germ-infested fingers into your mouth and eyes, and of wearing tight clothes and loose hats, high heels and low shoes, and so on.

FADS IN HYGIENE

But it may be worth while to say a few words on the subject of hygienic clothing. Persons of strong vitality can wear nearly the same weight of clothing the year round, but their example is no guide for others, especially in the middle and northern states. A great deal of nonsense has been talked about "toughening yourself," and some have been injured seriously in consequence. They have been shamed or deluded into wearing thin clothing when they should have worn thick, and into exposing themselves to various strains which they were not fitted to stand. What will toughen one will kill another.

Some hygienic pragmatism is a good thing. Which means, in other words, that the only test of any hygienic theory, so far as you are concerned, is whether it is good for you. That it may be excellent for someone else is of no consequence. Therefore, wear what agrees best with your health. But be honest with yourself. Don't pretend that your cold did not come from wearing summer clothing in winter weather just because you "hate" thick clothing, when you know perfectly well that such was the real cause. This suggests the subject of sneezing. Except when due to snuff, dust, pepper, or other irritants, sneezing is like pain in being one of nature's signals, which it is well to heed.

A great deal of the aversion to warm clothing is due to the popular notion that warm underclothing necessarily means woolens, and "they scratch so." Others are frightened by the high price of woolen, for in these days there is no real all wool underclothing of any thickness on the market except at fabulous prices. Even then

you must be an expert on woolens, for manufacturers have learned to fix up cotton, either straight or mixed, to appear so exactly like all wool that you run great risk of getting little or none of the latter for your big expenditure.

Under these circumstances people who must count their dollars have been driven to try cotton underclothing and have found, to their surprise and delight, that heavy, fleece-lined cotton underclothing is as warm as any so-called woolen (which costs three times as much). Besides, it does not scratch. Of course it is bulky, but so is any warm underclothing.

THE CARE OF THE HAIR

The hair is so generally neglected that it seems necessary to say something on that specially personal subject. All of us carry about on our heads an ideal dust-catcher and a nesting-place for germs. This we should never forget. The least that everyone ought to do for comfort and decency is to give the hair and beard a vigorous combing and brushing every day. The comb should not be used so violently as to excoriate the scalp. The main reliance should be on vigorous scrubbing with two very stiff brushes. If that is done faithfully, supplemented by a monthly shampoo, any microbes which you may have been entertaining will get discouraged and move to quieter quarters. Incidentally you will be relieved of that common plague, dandruff, and your hair will grow vigorously and stay by you in old age. But beware of all hair-growers and dandruff-cures. There is nothing better than brushing and pure white soap and water. Use no pomatum or grease; in most cases the hair, if treated right, will supply its own ointment.

EXERCISE

Every day some exercise should be taken which makes the blood move faster, which forces the heart to greater exertion, and which fills the lungs to their utmost capacity with life-giving fresh air. Running is an ideal exercise. The pace need not be rapid. If the individual can run but a city block it will prove beneficial. If he can cover a mile at a moderate pace, so much the better. The average individual should be able to run one mile and to walk five miles without too great fatigue. Boxing, wrestling, playing ball or tennis, and swimming are also splendid forms of exercise.

SOME SUGGESTED EXERCISES

To Strengthen the Trunk Muscles and the Vital Organs

These exercises should be taken in a well-ventilated room. Loose clothing sufficient for warmth should be worn. The proper time to exercise is just before retiring or on arising in the morning. Omit the exercises one day in the week and stop exercising for any number of days if the movements become tiresome. Put the mind into the exercises, concentrating the attention on the parts of the body brought into play. Get fun out of it.

Fig. 1 Stand erect, hands on hips, weight of body thrown slightly forward so that weight is on balls of feet. (This is the correct position at all times.) Twist upper part of body around to the right as far as possible, bending at the waist. Repeat ten times. Then to the left and repeat ten times.

Fig. 2. Grasp a chair by the back. Lift the chair over the head and as far back as possible. Then bring the chair forward over the head, restoring it to its original position. A very light chair should be used by children and weak adults.

Fig. 3. Hold the chair at arm's length straight over the head, grasping it by the back. Now bend far to the right. Turn and bend to the left. Repeat until slightly fatigued. Note how this exercise calls into play the great trunk muscles.

Fig. 4. Lie flat on the back, arms folded on breast and feet under the edge of

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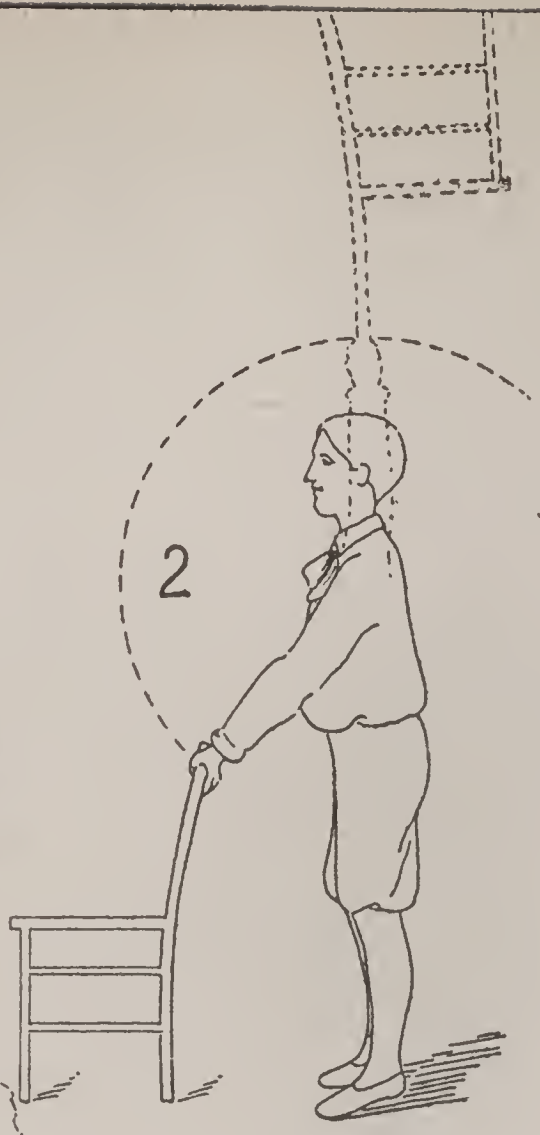

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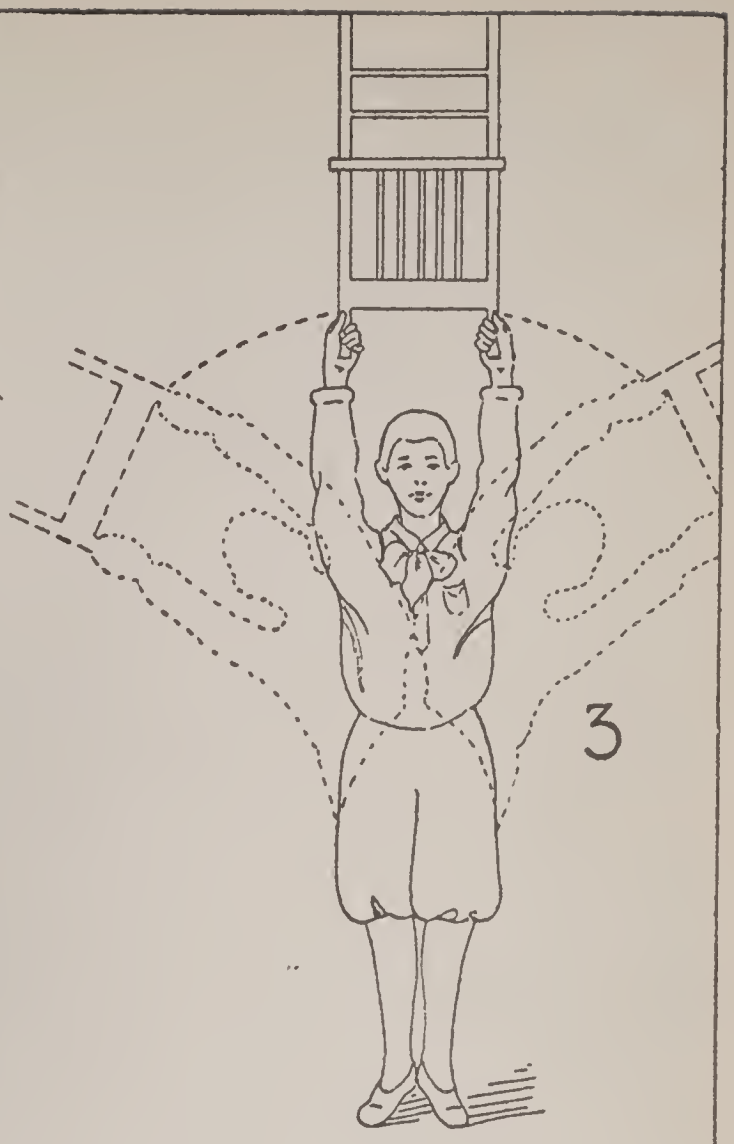

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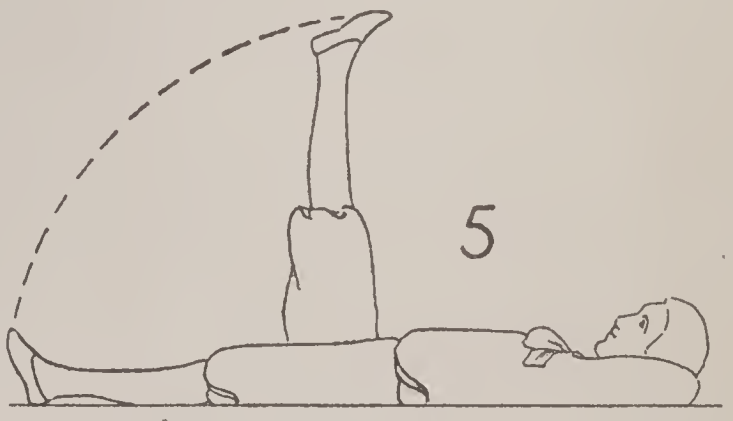

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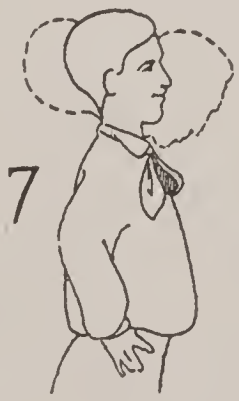

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Home Exercises.

the bed or some other firm object. Rise to sitting posture. Repeat until slightly fatigued.

Fig. 5. Lie on the floor or bed with hands under back of the head. Raise right leg to perpendicular position. Lower right leg and raise left. Continue alternating until slightly tired. Then rest. Now raise both legs together from the floor to vertical position. Continue until tired. This exercise is a splendid one for the abdominal muscles.

Fig. 6. To strengthen and beautify the neck, tighten the neck muscles and move the head toward the right shoulder. Then move toward the left shoulder. Stop as soon as tired. Relax the muscles and rest.

Fig. 7. Same as Fig. 6 except that the head is moved forward and back with muscles at tension.

Fig. 8. With neck muscles rigid, move head around in a circle to the right and then to the left.

Fig. 9. Beginning with erect posture, hands on hips, rise on toes and then lower the trunk to a squatting position. Rise with hands still on hips and repeat.

Fig. 10. Fill lungs, beginning the breathing process with the abdominal muscles. With the lungs inflated, stretch and yawn, endeavoring to contract every muscle in the body from the feet up. This is the way animals take physical culture exercise.

All of these exercises need not be taken at one time. They are offered as suggestions from which selection may be made. Exercise should be varied. Ten minutes at a time is sufficient.

CHILD WELFARE

In the eye of the New Era, as already stated, the greatest thing in the world is the individual, but the most important individual in the world is the child. In that idea social science and religion join hands. For not only is the child the father of the man, he *is* man in that plastic period when we can mold him into any form we choose, when we can plant in him the seeds of life or death.

In 1910 a Child Welfare Exhibit was opened in New York City in the Seventh Regiment Armory at a cost of $100,000. In it were displayed the results of three years' work by hundreds of workers among city children, and 250,000 people profited by the opportunity to learn many things which they did not know before.

In the following year, through the generosity of a Chicago woman, the same exhibit, greatly enlarged and improved, was brought to Chicago and installed in the Coliseum at an additional expense of $50,000.

The moral and economic value of such exhibits cannot be overestimated. On the one hand they open the eyes of the prosperous to their social responsibilities and dangers; on the other hand they help the submerged to catch some glimpse of hygienic truth and sanitary living—they make for healthier, happier childhood and fewer criminals. Although they exhibit urban conditions and problems, in the main the lessons they teach are of universal application.

OPHTHALMIA OF THE NEW BORN

It has been well said that the improvement of a child should begin with the reformation of its grandparents, but the best we can do now is to reform the grandmothers and grandfathers of the generations which are to come. There is no better place to begin than at the beginning, when the new-born infant first opens its eyes to the light.

But for thousands of the new-born that first opening is the last; their opening eyes close at once in unending night, through the criminal ignorance or cruel carelessness of those who should care for them. And worst of all, it is so utterly unnecessary, so easily preventable. Just a little bathing of the infant's eyes, the ap-

1. An Open Air School. 2. A Fresh Air Room.

1. A City Playground. 2. A Pole-climbing Contest.

plication of four drops of a one per cent solution of nitrate of silver, and 25,000 persons in the United States who now grope their way through life might be rejoicing in the light and beauty of the world. What cruelty, what wicked waste of economic value! One of the grandest services which visiting nurses and physicians are performing is to teach mothers, especially the poor and ignorant, to use that simple preventive. But it is only a beginning, and meanwhile thousands of helpless little ones are needlessly doomed to darkness and to dependence for life.

Other grand social services, already mentioned, which are a part of the child welfare movement, are the sanitary milk stations, crêches, babies' tents, mothers' classes in infant care and feeding, open-air schools, etc. At the present writing there are in New York City ten and in or near Chicago five "infant welfare stations," to which ailing infants may be brought and where they receive the best medical attention free of charge, with the best sanitary appliances and care.*

SOCIAL SETTLEMENTS AND RESPONSIBILITY

Not even an attempt can be made here to do justice to the sanitary and hygienic uplift which has been started in all cities of any size by social settlements and other private philanthropies. The reader must be referred to the books and magazines devoted to that subject. There you may read about the "little mothers' classes" where the older girls are taught how to care properly for their brothers and sisters in mother's absence. Here is described the new hygienic dentistry and surgery—new because it is furnished freely and compulsorily to all public school children. The topics of vital and absorbing interest are almost countless.

At last society is beginning to wake up to its social responsibilities and opportunities. The right of every child to at least a decent start in the life-race is recognized. It is perceived that foul food, foul teeth, foul clothing, and foul air are almost fatal handicaps, and that it is both the duty and the interest of the state to replace those injurious conditions with sanitary ones, even by force if necessary.

THE SLUM TREATMENT

The most unhygienic factor in the poor child's degradation is his "home." What a horrible travesty a filthy, sunless, airless tenement room is upon a real home can be realized faintly by inspecting the exhibits above mentioned. There were displayed cardboard models of city blocks, with figures showing density of population and the unhealthy and indecent crowding of men, women, girls, and children into single rooms and dark cellars, with photographs of actual conditions and persons. How can any good thing come forth from such a human cesspool?

As the slum boy grows away from his mother's arms—supposing he has ever known them save in wrath—he graduates into the unsanitary environment of the street and alley. His sister is likely to be engrossed with domestic cares equally unsanitary. At once the boy becomes a member of some alley gang whose playground is amid all the indescribable filth of the foulest parts of a city. But what else can the child of the poor do?

That question is being answered—very inadequately as yet—by many public and private efforts. Most municipalities are now providing public playgrounds, small parks, free swimming pools and bathing beaches, summer schools, children's reading-rooms, etc., etc. Then there are fresh-air sanitaria, free garden patches, summer camps, and vacation cottages and farms conducted and financed by benevolent individuals, clubs, newspapers, and magazines.

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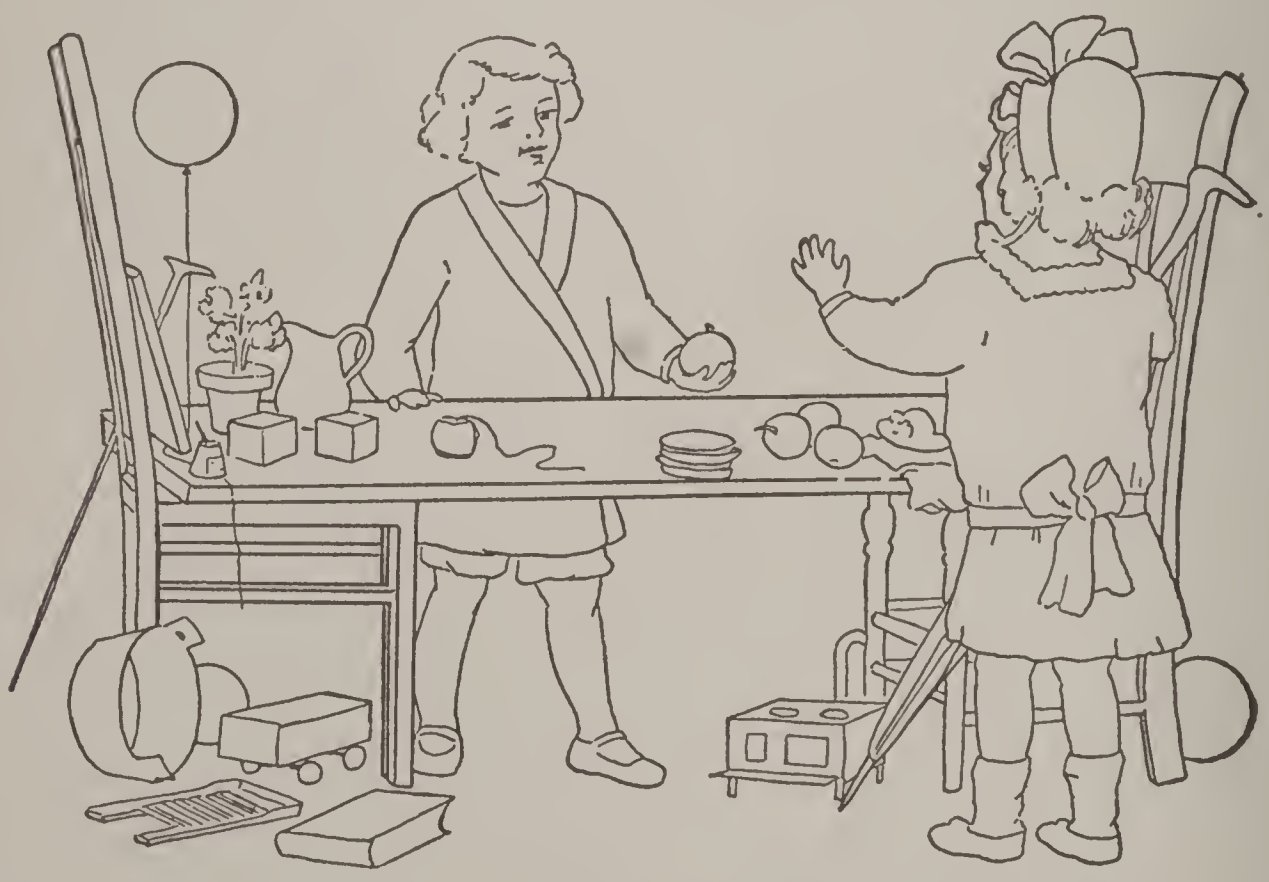
* Among these at Chicago are the Jackson Park Sanitarium, the Daily News Home, the Daily Tribune Home, etc.

PLAYS AND GAMES

Among recent educational tendencies none is more striking or interesting than the overwhelming emphasis on play. From the dull school of fifty years ago, with its long study hours and few recess periods, we have suddenly swung over to a system that not only recognizes but encourages and directs the child's play instinct. It even seeks to give him a large part of his training through it. "Man is whole only when he plays," says an old proverb, and this truth is the keynote of the new education.

The same principle was at the basis of Greek training; and one of the inexplicable questions in connection with our educational system is that, in spite of our desire to produce fully educated men according to the Greek standard, we should have been so long in recognizing and adopting the Greek method. The great



educators of all time have been convinced that play has a large place as an educational factor. Says Froebel, "The plays of the child contain the germ of the whole life that is to follow, for man develops and manifests himself in play and in it reveals the noblest aptitude and the deepest elements of his being." Froebel's chief function as an educator was to systematize undirected and aimless play, so that even what the child does spontaneously and for pure fun may have an educational bearing.

It is the sudden acceptance of the belief that this is possible which explains the public playgrounds, recreation centers, game evenings, and in general all the results that have come from the thousands of dollars that have been invested in the play project, especially in the large cities. The play idea is spreading even to small towns and remote districts. Old games are being revived, old folk dances are coming into fashion again, and everywhere people are learning that full, free play influences

character by making the body more erect, more graceful and free, more definite and well poised in its action. It gives the needed relief to stored up energies, it teaches the value of promptness, the need of immediate judgment to meet constantly changing conditions, the necessity of subordinating self to the interest of the whole. The whole nature is recreated and enlarged by the joy of self-expression.

Play is the child's real work. Some educators hesitate to admit the wisdom of an educational system which makes play an important element in a child's development, fearing that the love of play may prevent the love of work afterward. But play is the real work of childhood, and the love of play in the child should afterward become the love of work in the man. Every characteristic of excellence in playing—quickness, alertness, enthusiasm, persistence, energy, independence—is also a characteristic of a good worker at maturity.

The classified games given below can be little more than suggestive. The book-list gives sources of many more. Children are generally glad to suggest their own games and, whenever possible, they should have their choice. Just what shall be played depends partly on available space and partly on the end desired, whether it be to rouse and quicken, or to concentrate and be still. Any teacher will do well to write to the Playground Committee of one of the larger cities, such as New York, Chicago, Philadelphia, Rochester, or other places where the play movement has gained headway. Their suggestions and devices are generally to be had for the asking, and are invaluable to anyone who has had but little experience in organizing and directing play groups.

BALL GAMES

Long Ball. Any number of players. Catcher and pitcher take the usual positions. Others scatter indifferently. The batter endeavors to bat the ball. All hits are fair. When a batter hits the ball or has had three strikes he runs to "long base," about fifty feet from the home plate. A batter is out if hit by a thrown ball or tagged between bases. Any number of runners may be on long base at a time. Every runner getting home scores for his side. The side at bat is out when three men are out or when there is no one left "home" to bat.

One Old Cat. One Old Cat is a very simple ball game. It is played with a soft ball and a small bat so that little space is needed. There is one catcher, one batter, and one pitcher. All the rest are fielders. There is no base running. The batter is out on third strike. Then the catcher becomes batter, the pitcher catcher, and so on.

Two Old Cat has two bases and two batters. Batters are put out in the usual way. When a batter is out the players move up as in One Old Cat.

Volley Ball. Two sides of any number may play. The court should be about fifty by twenty feet. A net (cheesecloth) is stretched across the middle. A player serves the ball from the rear line over the net and into the opponent's field. The ball must be returned before it strikes the ground. Batting upward only with the palm of the hand is permitted. A failure to return the ball counts one for the opposite side. Faulty service counts one for the side receiving. If a player touches the net, his side loses one point. The side first scoring the number of points agreed upon wins the game.

Among ball games should also, of course, be mentioned the standard Foot Ball and Baseball with their variations, such as Socker Foot Ball, Rugby Foot Ball, and Indoor Baseball and Cricket. All kinds of ball games are excellent and children soon introduce endless variations. Encourage all the children, girls as well as boys, to play.

RUNNING GAMES

Everybody knows many of the old running games. Children are especially fond of them for they give a vent for a stored up energy and a sense of exhilaration that

no other games afford. In this class belong all sorts of races, such as bean bag and clothespin races, hoop race, flag race, "Drop the Handkerchief," "Puss in the Corner," "Follow the Leader," "Fox and Geese," and countless others. All kinds of tag can be played indoors, though playing outdoors is always better.

COME WITH ME is something like "Drop the Handkerchief." The children stand in a circle. One runs around the outside of the circle, and slaps somebody on the back. The one slapped runs in the opposite direction. When the two meet they clasp hands, swing around, and race for the vacant place. The game may be varied by having the children bow when they meet and say "How Do You Do" three times.

CAT AND MOUSE is a good game for a small yard. The children form a circle, holding hands. The mouse is inside the circle and the cat outside. The cat tries to catch the mouse. The children let the mouse run in or out, but they try to hinder the cat by holding their arms in front of her. When the mouse is caught she has to be cat and another mouse is chosen.

BOILER BURST is another good game. All gather around the catcher who tells a simple story, finally introducing the words "the boiler burst." At these words all run to a given goal. Whoever is caught before reaching the goal must be the next catcher.

FLAG RACE. The children stand in line, each row facing a child who marks the end of the course. Each child has a flag, and at a given signal the children standing at the head of the lines run and place their flags in the hand of the child at the end of the course, returning as quickly as possible to touch the child standing next in line, which meantime advances one so as to bring the child at the head of the line always at the same distance from the goal. The line which first deposits all its flags in the hand of the child who is to receive them wins.

DUCK ON THE ROCK. Get a soap-box for the rock and bean bags for the ducks. The one who is "it" places his duck on the rock. The others throw their bags from a given line in order to knock the catcher's duck off the rock. The catcher tries to tag any one who picks up his duck to run back for another throw. If he succeeds before the runner crosses the line the one tagged becomes "it," but the catcher must always replace his duck on the rock if it is knocked off before he can tag anyone.

POTATO RACE can be run anywhere. Line up the children in columns, the leader toeing a line which marks the beginning of the course. At the other end of the course place a box or draw a circle upon the ground. In front of each line of runners place several piles of potatoes at convenient distances apart, each pile containing as many potatoes as there are runners in each line. At the signal the head runner in each line starts to put a potato from each pile in the box. Then he returns and touches the one who is now at the head of the line, thus releasing him. This continues until all have run. The line finishing first wins the race.

THREE DEEP is an excellent game. One player is tagger and another is runner. The older players form two deep in concentric circles. The tagger chases the runner around in and out of the circle. When the runner is hard pressed he takes a position in front of one of the other players, thus making a column three deep. Thereupon the outer player in that column becomes the runner. When a runner is tagged he becomes tagger and the tagger runner.

Among "Track and Field Events" are the Sixty Yard Dash, the Relay Race, the Standing Broad Jump, the Running High Jump, the Running Broad Jump, etc. When space is limited races may be extemporized in various ways, as jumping races, hopping races, three-legged races, and the like. All of these afford excellent opportunity to begin class athletics. The object of class or group athletics is to get everybody to participate—the good, the bad, and the indifferent runners and jumpers alike. In these contests that class wins whose average per pupil is best. Instead of putting the best runners of one class against the best of another, all or nearly all must join, and the victory goes to the group that has the best average.

Often running games can be accompanied by singing. Nearly all children know "London Bridge," "Farmer in the Dell," "Round and Round," "The Village," and "I Put My Right Hand In." Lately there has been an interesting revival of folk dancing. Many of these dances are accompanied by songs which the dancers themselves sing. Inasmuch as both the songs and the dances are representative of the different peoples from whom they have come, such exercises have a real educational value, and if systematically conducted the children enjoy them immensely. The playgrounds committees of nearly all large cities have directions in printed form for many of these dances, and often they may be had merely for the asking. In this country there are as yet not many special publications on this subject. Several excellent ones are published in London.

CIRCLE GAMES

The following games are especially well adapted for indoors. There are often times when, on account of the inclement weather, the children cannot go out to play. At such times the teacher will do well to see that regularly organized games are carried on inside, for if the children are not occupied during noontimes and recesses they will be either listless or mischievous when school time comes.

Circle Ball. Players form a circle. One of them throws a ball at another player, who catches it and throws it at someone else in the ring. It should be thrown in rapid succession and unexpectedly. Variations may be made by bouncing the ball, clapping the hands before catching it or the person who fails to catch it must sit down.

Pass Ball. Players form a ring with the feet placed sufficiently far apart for the ball to roll between them and each foot touching a neighbor's foot, so that the ball cannot easily pass between players. One stands in the center and tries to roll the ball between the feet of a player, who rolls it back with his hands. If it passes between his feet or he moves his feet so that it cannot pass, he takes the place of the player in the center.

Belled Cat. Hang a bell around the neck of one player, calling him the cat, and let the rest form a ring, inside of which two children, blindfolded, may chase the cat. When the cat is caught the catcher becomes blindfolded in his place.

Have You Seen My Sheep? One player walks around the outside of the circle. As he tags someone he says, "Have you seen my sheep?" The one touched replies, "How was he dressed?" The one who is "it" then describes the dress of someone in the circle who, as soon as he recognizes himself, must run and try to pass around the circle and reach his own place before the one who is "it" can tag him. If he is tagged, he is "it."

Fruit Basket. Players sit in a circle. One stands in the center and, after giving each child the name of a fruit, he tells a story bringing in these names. All rise and turn whenever the words "fruit basket" are heard, and each player turns whenever he hears his own name. The story ends with the words "The fruit basket upset." Immediately all the players change places and the one in the center tries to secure a chair. Whoever is left standing tells the next story.

The children themselves can suggest many more circle games. Among the familiar ones are "Drop the Handkerchief," "Pussy Wants a Corner," and "Spin the Platter."

QUIET GAMES

Often it is desirable to have the children play games in their seats or in the aisles. And though these games give little or no physical exercise they have their own value in the training in attention and concentration which they give. And often, indeed, when children are dull and listless, games like these will rouse and stimulate when games involving physical exercise only leave them exhausted.

Ducks Fly. Players stand in the aisles. The one who is "it" faces the lines

and says, "Ducks fly," and raises his arms to imitate flying. The others imitate him as long as the animals he mentions can really fly. If he names an animal that cannot and says, for instance, "Rabbits fly," the child who makes a movement must be "it" or pay a forfeit.

Grand Mufti. The principle here is the same as in the first game. The teacher stands in front of the lines and says, "Thus says Grand Mufti." As he does so he makes some movement which all the players must imitate. If he says "So says Grand Mufti," no one must move. Whoever moves must sit down.

Quiet games often afford excellent opportunity for correlating and testing the children's knowledge. For instance, pass around twenty or thirty of the half-cent size Perry pictures of well known men. Have the names covered and see how many children can name them correctly. A game like this can be played several times; and to have the children know such men as Gladstone, Hawthorne, Napoleon, or Franklin by their pictures is worth while. A game for testing knowledge of geography may be played in much the same way. Write, for instance, the word "Cleveland" on the blackboard and see how many cities beginning with *C* and containing at least one other letter of the word can be written in three minutes.

Another good name is "Buzz." The child in front says, "One"; the next "Two," and so on until seven, when the child must say "Buzz." Thereafter any child whose turn it is to count any number containing seven or a multiple of it must say "Buzz" or drop out of the game. For instance, thirty-seven and twenty-one would be called "Buzz," the one containing the figure seven and the other being a multiple of seven. When a child has dropped out, the next child begins with "One" again.

Many good bean bag games can be played in the seats. Indeed bean bags are such inexpensive and useful apparatuses that no school should be without them. Let every child have his own bag and a place to keep it from which he may remove it only with the teacher's permission except for a regular game. Following are a few bean bag games:

Bean Bags in a Circle. The players stand several feet apart in a circle. The bags are distributed to players at equal distances apart. Each player holding a bag turns and tosses it to his neighbor on the right and immediately turns to receive the one coming from the left. All the bags should be in motion at once. The liveliest game can be played when the number of bags is only one less than the number of players. The game may be complicated by having the bags of various weights and sizes.

End Bean Bag. Players stand in two parallel lines, A and B, about ten feet apart. At a given signal the first player in line A steps half way across to line B, and tosses the bag to the first player. The bag is passed from one to another down the line B to the end, when the last player moves half way across to line A and tosses the bag to the last child in A, and steps up beside him. Thus the games goes on, line A constantly moving up one and B down one until the first player in A becomes the first player in B. The game continues till the first player in A has moved down line B and back up in line A. The section which first accomplishes this wins the game.

Center Base. The players form a ring, one player standing in the center and holding the bean bag. He tosses it at some player, who must catch it, place it in the center, and at once chase the one who threw. The one who threw the bag runs out of the circle and tries to return and touch the bag before he is tagged. If he is tagged, he is out of the game and the other player throws. If he is not tagged, he throws again.

GAMES FOR THE SCHOOLROOM

"The Farmer in the Dell" Up to Date

The children of all lands have always delighted in rhythmic singing games. The oldest inhabitant can recall playing and singing:

"I'm on the king's land,
The king ain't to home,
He's got a sore toe,
And he can't come."

Saucily running up to the king's land and then running away before being caught, if nimble enough.

The first time I visited a vacation school I found the teacher teaching *The Farmer in the Dell*, which is such a perennial source of pleasure to children everywhere, as they have started with "the farmer in the dell" and ended with "the cheese" which "stands alone."

But someone has ventured to vary the pure nonsense of the original and has given us a most timely and appropriate game for these days when the nation is calling upon the larger boys and girls to show their patriotism by their gardening. So I was delighted to find our little ones playing this new edition of *The Farmer in the Dell.*

With hands joined forming a large circle the children skipped around singing:

"The farmer in the dell,
The farmer in the dell,
Heigh O, the derry O,
The farmer in the dell."

At this point the leader touches a child, who steps within the circle and as the Farmer walks around, scattering seed with his right hand from the imaginary bag of seed on his left arm, as he sows the seed, the children in the circle sink down on their feet to impersonate the seed sown but continue the descriptive singing,

"The farmer sows his seed,
The farmer sows his seed,
Heigh O, the derry O,
The farmer sows his seed."

Then the leader touches another child, who runs around within the circle as Rain. With arms raised high, from relaxed wrists and fingers make believe rain is shaken impartially over the seed the farmer has sown. Meanwhile the seeds in their double part as seeds and children sing,

"The rain begins to fall,
The rain begins to fall,
Heigh O, the derry O,
The rain begins to fall."

Rain having done its part, another child as the Sun, with a smiling face encircled by his arms beams upon the seed-children while they sing,

"The sun begins to shine,
The sun begins to shine,
Heigh O, the derry O,
The sun begins to shine."

Then all the seed-children place their palms together to suggest the sprouting plants. They push them up slowly as high as they can, rising up to their fullest height, inhaling a deep breath and singing:

"The plant begins to grow,
The plant begins to grow,
Heigh O, the derry O,
The plant begins to grow."

An Observation Game

We have a baby rabbit in the first grade. Bunny Longears the children have named him. Being young, playful and happy he is constantly doing things which delight the children—now running, now jumping, now standing up on his hind legs, now pulling down one long ear to scratch it—quickly changing from one interesting position to another.

To reproduce these rapidly changing positions of Bunny by cutting, modeling or sketching requires greater skill and deftness than these little people possess.

So each child has cut cardboard into a large egg shaped piece for Bunny's body, a smaller one for the head, two oblongs for the long slender ears, a circle for the stub of a tail, two crude oblongs for the long hind legs, two shorter ones for the short fore legs.

When time for playing the game the children sit in a circle on the floor with Bunny within the circle, where he moves about at his own free will.

As a child catches one of Bunny's interesting poses, in quicker time than it takes to tell it, he adjusts his cardboard forms to show the poise.

Then as Bunny moves just the readjustment is made that is required to show the new position.

This is good training in quick, exact seeing, accompanied by immediate, purposeful mental and muscular response. The game is a suggestive one for primary grades.

Quotation Game, for Advanced Pupils

Here is a game which calls for quickness in thinking of quotations, exactness in giving them, and accuracy in naming their authors.

The first player gives a quotation as,

"O beautiful for spacious skies
And amber waves of grain,
For purple mountain majesties
Above the fruited plain,
America! America!
God shed his grace on thee,
And crown thy good with brotherhood
From sea to shining sea.

Then the next must give a quotation beginning with the last letter in this one; as

A soft answer turneth away wrath.—*Bible.*

The next must give one beginning with *h*; as,

Howe'er it be, it seems to me
'Tis only noble to be good.
Kind hearts are more than coronets,
And simple faith than Norman blood.
—*Alfred Tennyson.*

The next must begin with *d,*

Dare to do right, dare to be true,
Other men's failures will never save you.
—*Old Song.*

This must be followed by one beginning with *u*; as,

Under the wide and starry sky,
Dig my grave and let me lie,
Glad did I live and gladly die,
And I lay me down with a will.
—*Robert Louis Stevenson.*

If one cannot think of a quotation in a reasonable length of time agreed upon, he drops out of the game, and the next in turn has his opportunity, and the game goes on and on until only one is left who can add an exact quotation beginning with the required letter and naming the source.

It will help a player to hold in mind one or two poems, as *A Psalm of Life,* or *The Blue and the Gray,* and run down the lines quietly for a quotation.

Such games are excellent in encouraging one to read not merely to gain general impressions, but to retain exact thoughts in fitting words.

RELAY RACES

Relay races are many and varied; they meet certain requirements of a good game. They are always enjoyable, each child has a part, all the class are interested every second of the time, and they are good team work in its simplest form.

To illustrate:

Over-the-Head Bean Bag

This game is excellent in a first grade for a brief relaxation period. Simple as it is, it requires understanding, remembering and alertness to play the game.

The children are seated in compact rows of equal length. A bean bag is placed on the first desk of each row.

At the signal the first child in each row picks up, with both hands, the bag lying on his desk and swings it up over his head.

The child behind him takes it from the first child's hands with both of his hands, swings it back over his own head where it is received by the third child in the row with both his hands, and so on until the last in the row receives it; he holds it triumphantly aloft in his right hand.

If the bag is dropped it is assumed that the child holding it over his head is to blame, in that he has let go before the next had grasped it, so it is replaced in his hands. If a child takes it in one hand only, he must replace it in the hands of the one in front, as "both hands" is one of the conditions to be observed.

When the teacher declares which row or rows were the winners, they are cheered by clapping hands.

After the game is mastered in this way, it is lengthened and varied by having the bag passed thus overhead down the line, placed on the last desk, taken up again instantly and passed forward in the reverse order.

Eraser Relay

The room that is not supplied with even the bean bags may have an enjoyable and recreative time with this one:

Seat the children in compact lines of equal length. Place a clean eraser on the first desk of each row. At the signal, the first child in each row picks up the eraser, runs from the right side of his desk to the front of the room, touches the trough of the blackboard with eraser, runs back to the left side of his seat, handing the eraser to the next in his row who runs forward from the right to the blackboard, etc.

Indian Club Relay

This game is suitable for an open space in a wide hallway or gymnasium, although it is by no means impossible to play it in an ordinary school room.

The players are equally divided and stand in two rows, facing each other, at a distance of fifteen feet. At one end of the avenue thus outlined are two circles about two feet in diameter. In the center of each circle stands an Indian club. (If Indian clubs are not available tall, tippy bottles may be substituted.)

At the opposite end of the avenue from the circles, on a starting line, stands a row of four pupils ready for the run. Just behind these stands the director of the game, who gives the signal for starting and stopping the game on a ten cent playground whistle, which is almost essential in such a jolly, noisy game. The point of the game is to run around the Indian club, or bottle, without overturning it and return quickly to the base, thus training in speed and controlled movement. If the club is knocked down the runner must stop to replace it, thus losing time for his side.

When a runner leaves the starting line the next one on his side steps into his place, and stands, with his right arm as far forward as possible, ready to run.

Each runner returns to the starting line with his right arm outstretched to touch the right hand of his successor, which is the signal for him to start. Each runner reaches the line to the right of his successor and passes back of his lines to the end of the line near the circles. The players step along toward the starting point each time a run is made. Success is to the side which first completes the runs.

Cubes and Squares

Make two eighteen-inch squares in the front end of the room, opposite an aisle, and two at the back of the room at the end of the same aisles. Place four cubes in each of the two rear squares. Range the pupils in two equal divisions at the sides of the room. The player at the rear end of each row steps to the square at the rear. On signal he picks up one of the cubes, runs to the front of the room, places it in the square, runs back for another cube, and when he has placed the last cube within the front square, runs to the rear and touches the hand of the next player, who repeats the game by running forward for each cube, and placing it in the rear square. The third player returns the cubes to the front squares, one by one, the fourth to the rear, and so on until each player has made the runs.

Each player passes back of his row to the far end after his run, and the ranks are kept closed by all stepping down one place each time a run is made. The winning side is the one which first completes the runs. The bending, added to the controlled running, is an excellent exercise. The player learns to be exact, for if the cube falls out of the square he must replace it, or if he runs and slides, or drops his blocks carelessly, he finds that he has wasted time, and his mates make him feel that time is precious, so that he is trained by the game in one element of efficiency.

Number Relay

This game is one of the best means for securing the mastery of the essential number facts:

The players are divided into two equal groups, so seated that the distance from the part of the blackboard used is perfectly fair for each side.

The teacher writes a series of numbers in a horizontal line at a height suitable for the players. The two lists of numbers should not be in the same order, but should be equally difficult.

A piece of crayon and an eraser are placed at the left on the blackboard trough under each line of numbers.

Just before the start, the teacher announces what is to be done, as "Multiply by 7." Then she gives the signal and the first player on each side runs forward, picks up the crayon, writes the answer beneath one figure, returns the crayon to the trough, and runs back to his seat. The instant one is seated the next behind him runs forward, and so on until one side or the other has completed the list correctly. If in his haste a child drops the crayon, or eraser, he must pick it up. If a mistake is made, nothing is said, but if it is not corrected that side cannot win, and erasing and rewriting are time wasters. This game may be used for drill in all the fundamental operations. While the game is new, it is wise to suggest what table will be used next time the game is played, as "seven's in multiplication" or "four's in addition," etc.

The writer has never observed anything which motivated tables so successfully and pleasurably.

Spelling Relay

The players are divided into two equal groups. A word is written in the center of the blackboard in front. At the signal for starting, the first player on each side runs to the blackboard in front of his group and writes a word beginning with the last letter of the word in the center, and containing the same number of syllables.

As soon as number one reaches his seat, number two runs out and writes a word beginning with the last letter of the word just written, keeping always to the same number of syllables as the word first written.

When time is called the side having written the greater number of words correctly in the three points—initial letter, number of syllables, and spelling, is declared the winner.

To illustrate: The first word written might be *better*

Left	*Right*
relief	repeat
finding	tattle
given	even
never	neither
resting, etc.	rather, etc.

A Tag Game

Tagging games are innumerable and varied. Here is one that can be played in a schoolroom. It calls for alertness and quick muscular response, and at the same time furnishing some physical exercises and merriment.

The group stands in a circle with palms open upward, and held out toward the one in the center. The player within the circle, with arms extended, palms downward, turns quickly here and there, attempting to strike the hands of a player before they can be withdrawn.

As soon as a hand is touched that person becomes "it"; the one in the center takes a place on the circle and the game proceeds as before.

Have You Seen My Friend?

Here is a language-observation game which gives pleasure to the little people.

A group of ten or twenty, more or less, join hands and circle about, the teacher taking part with the children.

One says, "Have you seen my friend?"

At the question the children stop and listen for the bit of description, as:

"She is very small; she wears a pink dress and white shoes." The speaker tries to avoid looking at the one he is describing.

The children glance about quickly. The first to discover the friend leads her to the questioner. If quite correct, the finder has the next opportunity to inquire for a friend, as the group circles about him.

He may say, "Have you seen my friend? He wears a blue waist and a red necktie."

Children enjoy the crude little rhymes which they easily make.

One says:

"Have you seen my friend?
She stands very straight;
She comes every day,
And she never comes late."

Another:

"Have you seen my friend?
She has big blue eyes;
She has a pug nose,
But she looks very wise."

Succotash

One of the essential things to do immediately upon beginning the work of the school year is to impress upon pupils and parents that the work of the new grade is such as demands the child's best effort from the first day to the last.

While neither teacher nor pupil should lose this point of view for a single day, the play element should be utilized also.

There are dark days when, because of the lack of sufficient light, work must be oral—when the use of pen, book or blackboard is cruelly wrong. There are rainy recesses when the children must have recreation without "rough-house." There are relaxation periods requisite after the strain of special or long continued effort to be provided for.

Only the teacher with varied devices, and a ready wit in choosing that which is suited to the class and to the occasion will hold her pupils at all times to their best effort, happily, and successfully.

For such periods there are many games that are worth while. Succotash is a wholesome American mixture of corn and beans; and here is the game of Succotash, which is a good mixture of fun and number drill:

The Game of Succotash

Two leaders face each other from opposite sides of the room and choose sides, as for an old-fashioned spell-down.

The players understand that they are to count in order, but that every multiple of five is "corn," of seven is beans, and of both five and seven is "succotash."

So, beginning on the left side, they count alternately in clear-cut, rapid succession as follows:

Left	*Right*
"One"	"Two"
"Three"	"Four"
"Corn"	"Six"
"Beans"	"Eight"
"Nine"	"Corn"
"Eleven"	"Twelve"
"Thirteen"	"Beans"

And so on up to thirty-five, which is "succotash," and on and on until each player who has made a mistake having taken his seat there is but one left who is the victor. Of course the game may easily be varied by using other numbers, as 3 and 5, 3 and 11, etc.

Teaching is really good teaching, even in the games only, when it goes farther and teaches more than is apparently being attempted. A good game is suggestive and one which may be utilized and varied in the children's home life and in their social gatherings. The above game stands these tests successfully.

Maze Tag

A maze has always magical interest for children, and none the less so when it is a human maze of their own arranging. Maze Tag is an excellent game for the gymnasium and for out-of-doors.

The children form in lines of four, their outstretched arms and clasped hands forming horizontal aisles, up and down which a boy runs tagging a girl.

From time to time the director gives the command, "Right!—Face!" At the word "Face!" the pupils forming the maze let go of the hands, wheel half way to the right, clasp hands with the ones at right and left, again forming aisles, but at right angles to the former ones through which the runners must pass. This calls for bodily and mental alertness on the part of all.

When the tagger catches the one chased both return to the maze, each taking the place of fresh runners.

As both boys and girls play, a boy chases a girl each time; and, in choosing a successor, the girl chooses a boy and the boy chooses a girl each time so that division of the exercise is on the wholesome principle of equal suffrage.

Dodge Ball

The class is divided equally, forming two teams. One team takes its position on a large chalked circle, holding a volley ball. The second team stands still within the circle, facing outward.

At signal the one holding the ball rolls it into the circle, endeavoring to hit the feet of some one of the team within the circle. These players jump or spring aside to avoid the ball. Any one of the team within the circle who is touched by the ball must retire outside the outer circle. If one of them in seeking to avoid the ball gets out to the chalk line, he is counted out.

Anyone of the outer team may step inside to get the ball, but must step back to the line before rolling the ball.

At the end of two minutes the director blows the whistle, counts the number re-

Then their positions are reversed, the team which had been in the center takes maining unhit in the inner group, and credits so many points to that team.

Then their positions are reversed, the team which had been in the center takes its position on the circle, while the other team stands with the center for the next two minutes.

After an equal number of trials by each team the scores are added and the winning side announced—the side which has been able to have the greatest number of successful dodgers.

Two Amusing Races for Boys

The Four Legged Relay, that is, a relay race run on hands and toes.

The Woggle Bug Race. The runners bend forward, place arms between legs, reach around to the outside or front of the ankle, grasp the ankles and "run" in that position.

The Game of Twenty Questions

This is an old game that our mother taught us when we were little children, and it is still a favorite game in the family. Some one of us often comes and says, "You can't guess whom I met today," or "I've seen something new today. I'll give you twenty guesses to find out what it is," and it is a rare occasion when the thing in mind is not guessed before the twenty questions have been asked.

All the questions must be direct questions, as the answer must be only a "Yes" or a "No." The questions should be logical questions, so that each one eliminates great fields of possibilities; and each one brings the questioner nearer and more clearly to success. The game, therefore, calls for clear thinking. It necessitates remembering what questions have been asked and what answers given, and it discourages wild, haphazard guesses.

To illustrate: Some years ago, while sitting in a hotel in London, a box was handed to one of our party. The box had come from Washington, D. C. The recipient of the box was a government employee, and the box had been sent as a joke from her fellow workers, who had paid a dollar and fourteen cents postage to perpetuate it. Guess what the box contained.

Suppose the questions run as follows:

1. Does it belong to the animal kingdom? No. (That eliminates kid gloves and silk gloves.)
2. Does it belong to the mineral kingdom? No.. (That cuts out jewelry. It must belong to the vegetable kingdom.)
3. Is it something prized for its beauty? No. (Then it is not flowers.)
4. Is it something to wear? No.
5. Is it something to drink? No.
6. Is it something to eat? Yes.
7. Is it some sort of fruit? No.
8. Is it something cooked? Yes.
9. Is it sweet? No. (That eliminates cake, candy, etc.)
10. Does it contain flour? No. (Then it is not pie.)
11. Is it some kind of nut? Yes.
12. Does it grow on a tree? No. (Then it is not chestnut. What other kind is cooked?)
13. Does it grow under the ground? Yes.
14. Then it is a box of peanuts. Yes.

The definite object should never be named until the questions have eliminated all other possibilities, so that when an article is named the answer is "Yes."

This is as good a game for school as for home. It is an especially good geography game. Suppose that the object selected is the Louvre.. The questioner must find out if it is on land or water; on which continent; in which state; whether in town or country; if in a city, in which one; whether a natural object or a manufactured object; whether a building, or statue, or a picture; if a building, whether a cathedral, an art gallery, etc.; if an art gallery, whether the largest or not; and this shows it to be no other than the Louvre.

It is the type of game which, being taught in school, projects itself into the home life and the social life of the child.

Two Minute Rest Games

The first of these games was invented by a little group of first grade boys, whom their teacher was taking for a walk along the railroad in search of wild flowers, years ago. So they adopted it for one of their rest exercises.

The Hand Car

The pupils stand in twos, facing each other. Each takes hold of a handle of the imaginary hand car on which they stand, then they work up and down alternately. When the one pushes his handle down, the one facing him comes up.

See-Saw

Three children step to the front. One stands with arms extended sidewise, to represent the see-saw. One child takes hold of one of his hands, and the third child the other hand. Then alternately stooping and rising, one going up as the other goes down, they say:

"See-saw, up and down,
I can see all over town."

Huckle, Buckle, Beanstalk

This game gives good training in observation, is good recreation, and is entertaining in the home.

The object to be hidden is shown to the class. It may be an apple, a ball, a top, or any small object.

One row is directed "to blind." They do so by putting their folded arms down upon their desks and then burying their faces in their arms.

When the object is hidden in sight, and the child who has hidden it has returned to his seat, all the children not "blinding" call out, "Ready." This is the signal for those who have been "blinding" to pass quickly and quietly about the room in search of the hidden object.

Each one, as soon as he discovers it, carefully guarding the secret as to where he found it, hurries to his seat and calls out, "Huckle, Buckle, Beanstalk."

After a reasonable time those who have not found it are led to the object by one who has been successful.

The first one to find the object is the one to hide it when the next group is blinded.

A Visit to the Zoo

This fanciful game is a combination of wholesome fun, real music and good exercise. The game part is not "set," but is varied by the imagination of the children.

The little ones stand erect in straight rows in the center of the aisles and sing *The Zoo.* (See page 39, *School Primer.*)

The Zoo

I like to watch the tall giraffe,
The seal, and kangaroo,
And all the friendly animals
That gather at the zoo.

I like to hear the bear go "woof!"
And see the monkeys play.
When I can travel by myself,
I'm going there to stay.

Then the children play that they visit the zoo. Each one takes hold of his make-believe bicycle, and pedals away rapidly and softly in place. When they have reached the zoo, they spring lightly off their wheels.

Teacher—"Look at the elephant. Show what he is doing."

Each child bends over slightly, and, putting his palms together, sways his arms in imitation of the elephant's trunk.

Teacher—"See the girafie."

Then all stretch their heads up as high as possible, in imitation of the long neck of the giraffe.

Teacher (imitating the kangaroo)—"What animal is this?"

Child—"That is the kangaroo."

Teacher—"See him jump. Let us jump like the kangaroo."

Each child puts up his hands like the forefeet of the kangaroo, sinks down a little and then jumps three times.

Teacher—"Here is a high board fence. Let us see what is behind it."

The children stretch up to see over it.

Teacher—"What do you see, Juanita?"

Juanita—"I see a buffalo."

Teacher—"John."

John—"I see a camel."

Teacher—"Here is a cage of monkeys. Let us climb a rope just as that monkey is doing."

The children reach up and climb an imaginary rope hand over hand.

Teacher—"Did you have a nickel?"

Children—"Yes."

Teacher—"What did you do with it?"

Children—"We bought peanuts."

Teacher—"Yes, and you have the bag in your right pocket now. Let's throw a peanut to the monkey. Another. Another."

When the children have thrown their peanuts to the monkeys, the teacher says, "Let's blow up the bag."

The children take a long, deep breath, blow up the bag and pop it with a resounding slap on the left hand.

Then they mount their bicycles and ride home again, for they are not yet old enough to go there to stay.

BIOGRAPHY

The last two decades have seen an increasing emphasis on the study of biography. The claims for the subject have even been pushed so far that a class of historians has adopted the Great Man Theory, i. e., the theory that the history of a nation is nothing more than the history of great men, that heroes make occasions, and that national events are to be explained in terms of personality. This may be saying too much, but at least it is true that to generate enthusiasm in great exploits, to incite admiration for heroic deeds, and to throw light on the past or explain the present nothing is equal to the life-stories of great men. Moreover, though we have laid away the two-volume novel and taken up the short story, we are not content with the same condensed treatment of biography. There is a growing demand, not only on the part of scholars, but among general readers for complete life-histories, personal memoirs, letters, criticisms, estimates—anything that will present the subject in a full-sized portrait.

The teaching of biography has kept abreast of the new interest. It is made the basis of history, the background of literature, and often the entire subject-matter of assigned reading. Yet poorer work is done with it than with almost any other subject—partly because the teacher has no point in mind and hence fails to make her own or the children's contributions tend to an end, partly because biography is often studied without relation to anything larger, and often because the teacher herself is not thoroughly informed. For the last there is, of course, only one remedy: read all around the subject before you present it to the class; have a fund of anecdotes, reminiscences, personal incidents, ready to tell the class; but keep in mind always the larger purpose for which the study is made. This will depend somewhat upon the nature of the subject, the relation which it is to sustain to other studies, and the use that is to be made of it afterward. In any case a definite ouline is indispensable—something that will present the lesson in a graphic, vivid way. Let the outline be short, make it focus on the essential points, and adopt now and then a new form. The following plans illustrate concretely a variety of ways in which the main types of biographical study may be presented.

I. ANY WRITER

(In this case a specific subject is not presented inasmuch as the object of study would vary so largely with the nature of the author's work that no one outline would cover even a majority of cases.)

A. Biography.

a. Parents—Education—Early Training.

Influence of these on the author's later life and work. (In the study of literary men the merely biographical facts should, of course, be subordinated to the facts relating to his works. For instance, the fact that at any early age an author moved into a new locality is significant chiefly if the removal put him among influences of which his work bears signs.)

b. Marriage and Home Life.

As before, what relation does this bear to the author's literary life? Was his home life an inspiration or did he achieve in spite of it? (It is easy here to tell merely a lot of irrelevant ancedotes. Hold to the outline.)

c. Positions.

Did the author connect himself with the life of his times? Was he interested in politics, society, reform, etc.? Does he refer to these interests in his writings? (It is interesting to note how authors vary in this respect.)

d. Work.

(1). Prose—essay, novel, history, etc.
(2). Poetry—drama, lyric, epic, etc.

e. Rank and Final Estimate.

(1). The opinion of others as gathered from criticisms and reviews.
(2). Your own opinion based on personal study.

B. Methods of Study.

a. The Chronological Order.

List the author's works in order of publication, or production. What was his chief theme at first? What later? Do you note any increase in the range of his ideas, in the development of his technique? Any change in his outlook on life, in his attitude toward his own work, in his relation to his own time? (Usually, except with mature students, this is not a good method of study. It requires more time than can be given to one author and calls for discussions which only the teacher can handle.)

b. The Study of an Author as an Exponent of an Idea or Principle.

Now and then an author gives his whole life to furthering with his pen the interests of a certain cause. Harriet Beecher Stowe, for instance, is best known for her "Uncle Tom's Cabin." What is her attitude toward slavery? How did she get her facts? How does she treat them? Was she right in her attitude toward the South? Will her work endure? Why not?

Sometimes a writer stands for a principle in literary art. W. D. Howells, for instance, is a realist. Show that his books bear out his belief that common people and common events make good story material.

c. As Illustrative of his Life and Times.

Often the only record we have of a period is what was written at that time. The Old Norse Sagas, the Medieval Drama, the records of colonial days, are all full of touches that reveal the life of the times. Nearer our own time, much of Whittier's poetry is interesting chiefly because of its relation to the subject that was everywhere uppermost when he wrote—the Abolition of Slavery. This point of view alone often makes a good basis for study.

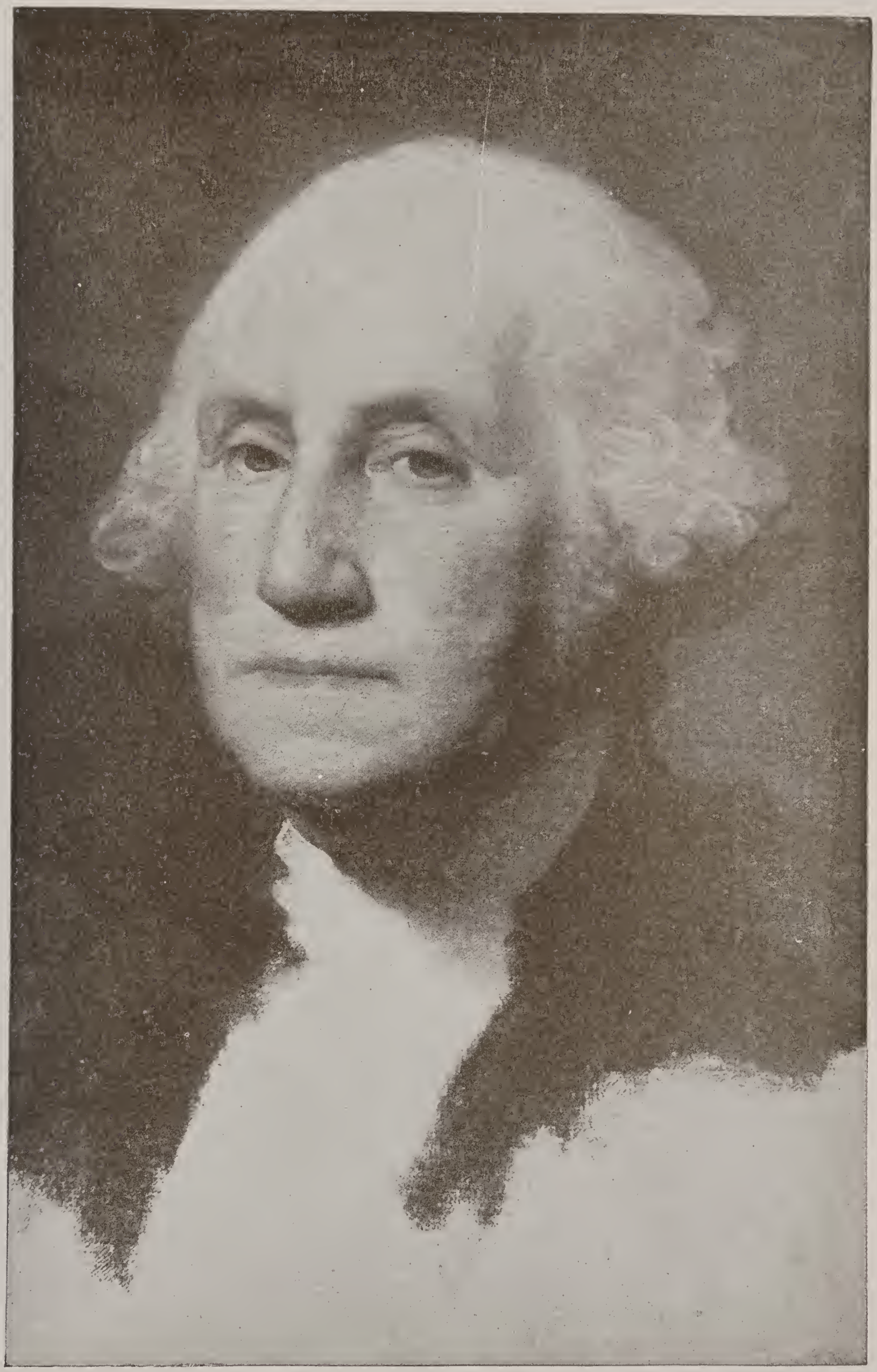
d. As an Example of a Large Literary Class or Type.

Many of Robert Louis Stevenson's writings, for instance, are best studied, as examples of the informal essay type. Part of Scott's work is interesting as an instance of one form of the historical novel. Lowell is pre-eminently a critic, and Bernard Shaw a dramatist. Often the development of a special form or method of treatment can best be traced in the works of the authors who used it rather than in definitions or in what has been written about it.

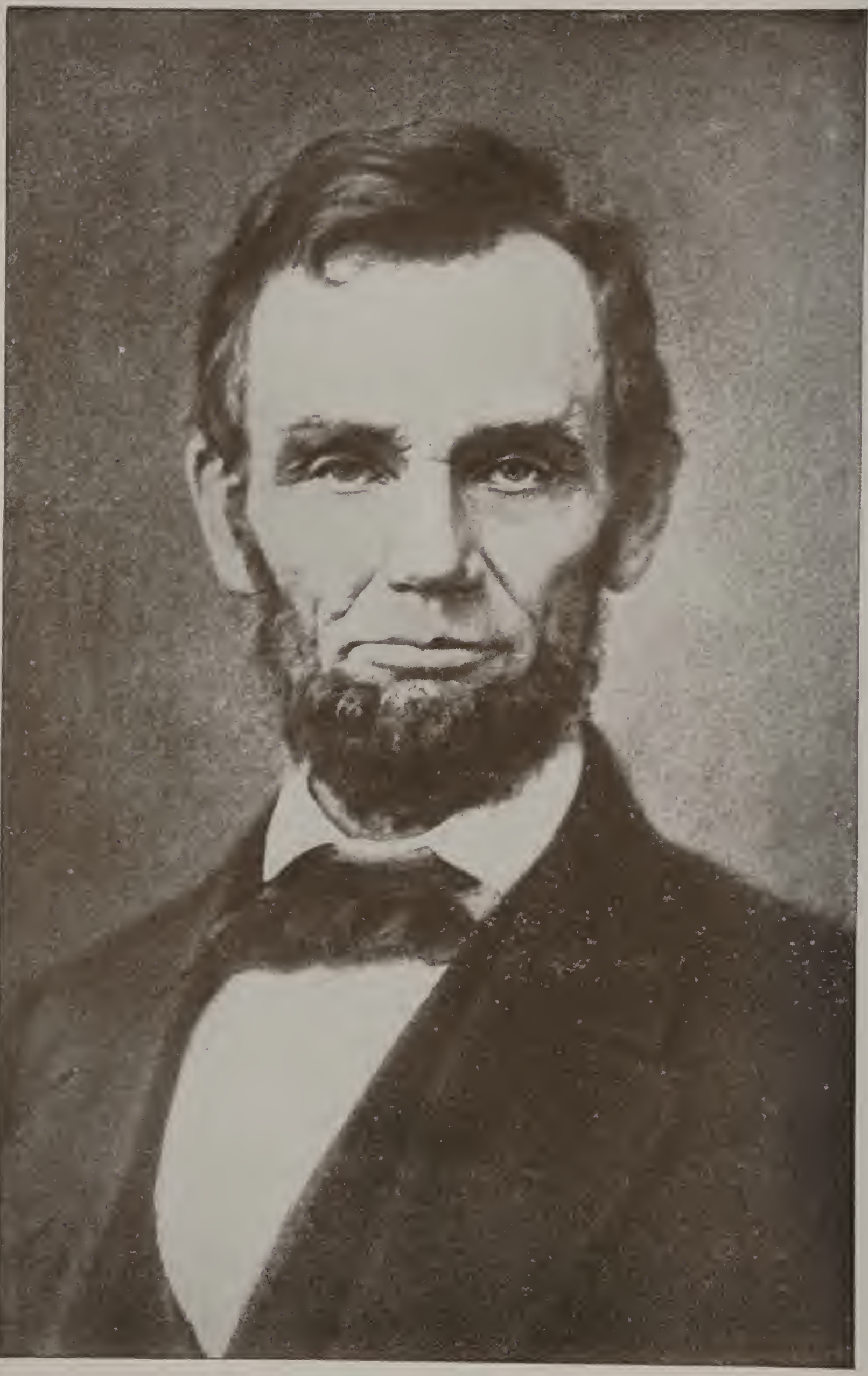
II. THE BIOGRAPHY OF A MAN OF AFFAIRS

BENJAMIN FRANKLIN

As the years go by there is a tendency, especially on the part of young people, to regard men like Benjamin Franklin as old-fashioned and out of date. "Good enough in their day," we say, "but how would they figure in this day of bustle and enlightenment?" It is well, therefore, now and then to recall the multitudinous



GEORGE WASHINGTON



ABRAHAM LINCOLN

activities of men who, in spite of obscure birth and unfavorable environment, rose by sheer industry to the foremost rank in the nation. The following outline has been made with the purpose of presenting the versatility of Franklin's genius and the variety of his pursuits:

Born in Boston, 1706.
Taught when a boy to make candles.
Read everything he could get and re-read favorite books often.
Learned composition by imitating great authors, especially Addison.
Apprenticed to his brother, a printer.
Became an accurate, prompt, and capable printer—(owned and published *Pennsylvania Gazette,* the most influential paper in the colonies).
Began *Poor Richard's Almanac,* 1732.
Clerk of Pennsylvania Assembly.
Deputy Postmaster of the Colonies.
Twice sent to England to deal with Penn heirs.
Member of Continental Congress.
Member of committee to draw up Declaration of Independence.
Influenced France to aid the Colonies.
Helped draw up Treaty of Peace, 1783.
President of Executive Council of Pennsylvania.
Delegate to Constitutional Convention 1787.
Signer of Declaration of Independence.
Discoverer of identity of lightning and electricity.
Invented the lightning rod.
Member of Royal Society of England.
Created LL.D. by Oxford.
Invented Franklin stove.
Improved the printing press.
Improved the rigging of ships.
Established American Philosophical Society.
Founded University of Pennsylvania.
Established Fire Company and Police force in Philadelphia.
Founded public libraries.
Was first Postmaster General.
Lived 84 years. Died honored and beloved.

MAXIMS FROM POOR RICHARD'S ALMANAC.

Great talkers are little doers.
Doors and walls are fools' paper.
Better slip with foot than tongue.
One today is worth two tomorrows.
Keep thy shop and thy shop will keep thee.

III. THE BIOGRAPHY OF A NATIONAL HERO

ABRAHAM LINCOLN

Occasion for reviewing the life of Lincoln comes at least once every year, on February 12. Too often the study is given over almost entirely to the recounting of amusing or characteristic anecdotes. In the case of a man like Lincoln such a program is always a temptation, for one never tires of good stories, and about Lincoln

there are many of them. As the years go by, however, the stories are likely to be forgotten, but Lincoln will still be remembered, as he should be, for the greatness of his character and the significance of his public services. This is the thought of the following outline. In point of method it differs from the others by beginning with a series of quotations or estimates, and then sketching Lincoln's life under two main headings:

1. Estimates of Lincoln.

"When God made Lincoln He left the meanness out for other folks to divide up among 'emselves."

"A new birth of our new soil, the first American."

" 'First in peace, first in war, first in the hearts of his countrymen,' was first said of George Washington, but the last belongs peculiarly to Lincoln."

"He made two trips to New Orleans and each time came back with a boat load of arguments against slavery."

"He was accessible to people of every degree; the veriest darkey that scrubbed the steps was able to have an audience with 'Mars Lincoln.' The wife whose husband lay languishing in some far-off prison did not come in vain to ask for exchange or furlough."

"His integrity could not be shaken; his sense of justice could not be perverted."

"To know him personally was to love and respect him for his great qualities of heart and head."—Grant.

2. Lincoln's Private Life.
   a. Early youth—born in a cabin in Kentucky. Could read and write at five; taught himself arithmetic and grammar. His mother taught him Bible stories. "All that I am or hope to be I owe to my mother." Removed to Indiana at seven. Learned to work and helped clear land for new home. Grew up tall, gaunt, strong, and eager to learn.
   b. Later youth—made several trips to New Orleans and learned to hate slavery. Engaged in store-keeping. Failed, but paid all debts, both his own and his partner's. Studied law.
3. Lincoln's Public Life.

In 1832 Whig candidate for legislature. "He was a rough looking fellow, but he made a sensible speech." Candidate again in 1834 and elected. "His ability to hold and please an audience was so marked that he became a leading man in the Whig party."

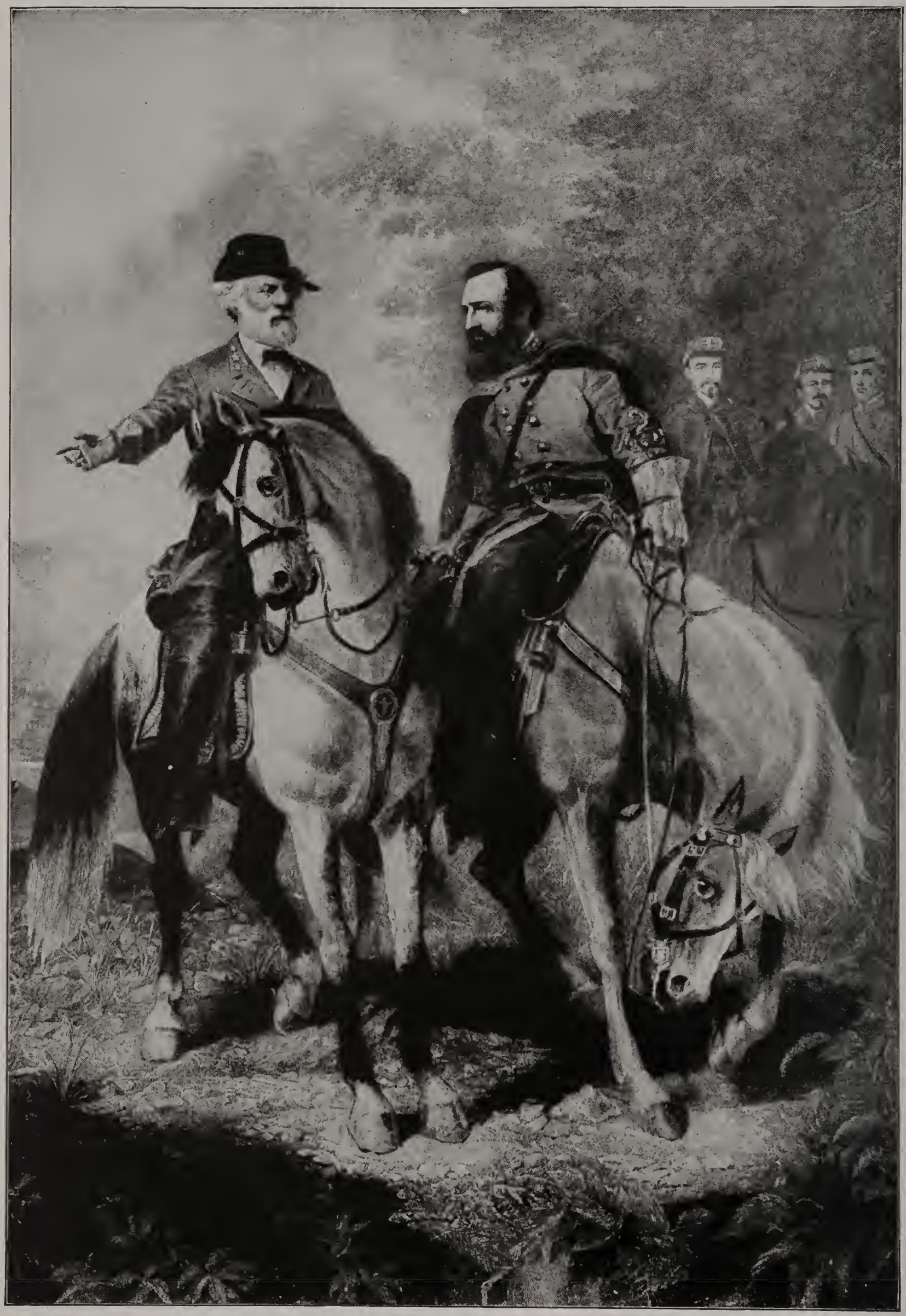
Sent to Congress in 1846. Became acquainted with great men. Always called "Honest Abe."

Elected to presidency in 1861. "I have taken a most solemn oath to preserve, protect, and defend the nation." Ready to accept advice but held affairs in his own hands. Won the admiration of enemies at home and of foreign potentates who at first made sport of him.

Emancipation Proclamation, 1863—the test of his promise to "hit slavery and hit it hard."

Gettysburg speech thought to be the finest specimen of oratory in existence.

Assassination, 1865. A nation in mourning. "In the death of Lincoln each man felt he had lost a just, wise, and patient friend." Monument at Springfield, 1874. Memorial building at birthplace, 1909. St. Gauden's "Lincoln" and Lincoln Park, Chicago, are memorials.



THE LAST MEETING OF LEE AND JACKSON

IV. BIOGRAPHY OF A GENERAL

ROBERT E. LEE

Any present study of Lee differs from the study of any other general from the **fact that lately** a great change has come about in the popular estimate of him. Even in the North he is no longer thought of as the leader of a rebel cause so much as the mistaken champion of a theory of government which the times had made impossible. A study of Lee must, therefore, take into account the conditions of his life, explain his adoption of a losing cause, and justify the growing admiration for him.

1. Environment and Training.

   Born in Virginia 1807—son of "Light-Horse Harry." Educated at West Point. Conscientious, studious, obedient, profoundly thoughtful. "I am convinced that duty is the sublimest word in the English language." Graduated second in his class. Married Mary Custis, a descendant of Martha Washington. Both family and early training inculcated the doctrine that loyalty to the state should come before loyalty to the nation. Intensely loyal to Virginia. "If I owned the three million slaves I would gladly give up all, but how can I draw the sword against Virginia, my native state?" Hence he fought against the Union when it became what seemed to him a foreign foe. Did not support slavery as an institution, but was opposed to the general emancipation of slaves, as he knew the institution of slavery was a part of the social rather than of the economic order.

2. Military Career.

   a. Fought in the Mexican War with distinction.
   Refused leadership of the Union Army.
   Engaged in more than twenty battles of the Civil War.
   Struggled with a raw, undisciplined army, inferior officers, weak government, poor roads, insufficient supplies.

   b. Qualities as a General.
   (1). Sagacious, penetrating, keen, careful in making movements.
   (2). Deliberate—planned all his campaigns in advance.
   (3). Foresighted—estimated with wonderful precision the strength and movement of the enemy.
   (4). Surrendered to Grant without bitterness.

3. Career After the War.
   Refused lucrative offers both from England and at home.
   Devoted remaining days to educational work as president of a college.
   Outlined a sound system in military tactics and a definite policy in healing the wounds made by the Civil War.
   Died the idol of the South and beloved by his students.

V. THE BIOGRAPHY OF A MONARCH

QUEEN VICTORIA

In studying the life of a ruler, the chief interest is, of course, on the public side —achievements in peace and war, reforms, influence on world history, etc. The personal life of great characters is, however, always interesting. The study might, therefore, fall under three main headings, as in the following:

1. Ancestry, Education, and Personal Character. Granddaughter of George III., House of Brunswick, Hanover, and Coburg. Reared by her mother with exceptional prudence and care. Educated chiefly by Bishop of Peterborough. Confirmed at 16. Traveled on the continent. Married in 1840 to Prince Albert of Saxe-Coburg Gotha. Retired from social life for many years after his death in 1861. Issued a small journal of her husband's life. Possessed clearness of judgment, moderation, and genuine goodness, Sympathetic in sorrow, devoted to her family, beloved of all her subjects.

2. Public Life.
   Called to the throne, 1837; crowned, 1838.
   Diamond Jubilee, 1897.
   Great events of her reign:—
   Rebellion in Canada.
   Opium War in China.
   Abolition of Corn Laws.
   Successive Parliamentary Reforms.
   Enfranchisement of the Jews.
   Assumption of Government of India.
   Crimean War.
   Wars with Afghanistan, Abyssinia, Zulu Tribes, and Egypt.
   Irish Home Rule Struggle.
   Beginning of South African War.
   Australian Federation.
3. Affairs in which Victoria was directly influential:
   The Repeal of the Corn Laws. (She urged this measure strongly from the beginning).
   Instituted Victoria Cross for bravery in battle, 1856.
   Created Star of India to reward native loyalty.
   Inaugurated National Rifle Association.
   Instituted Albert medal for bravery at sea, 1866.
   Always sent personal gifts of clothing and provisions to suffering soldiers.
   Ordered formation of Irish Guards.

VI. THE BIOGRAPHY OF AN INVENTOR

THOMAS A. EDISON

The life story of a man who is living and working today is always interesting to chi'dren. This is particularly true of a man like Edison, whose energies have been devoted to inventions closely related to practical life. It is often a good plan in such a case to present at once a list of the man's achievements and then go back to mere personal or incidental matters.

1. Edison's Inventions (Partial list).
   (1). Phonograph.
   (2). Long-distance telephone.
   (3). Duplex telegraph system.
   (4). Carbon telephone transmitter.
   (5). Microtasimeter.
   (6). Aerophone.
   (7). Megaphone.
   (8). Incandescent electric light.

EMINENT WOMEN

(9). Kinetoscope.
(10). Storage battery for street cars and automobiles.
(11). Automatic telegraph repeater.
(12). Commercial stock indicator.

2. Honors.

Edison has taken out more than 300 patents. Every electrical contrivance invented by him bears the mark of his genius.

In 1878 he was made Chevalier of the Legion of Honor of France.

In 1889 he was given the insignia of a Grand Officer of the Crown of Italy by King Humbert.

In 1892 he received the Albert Medal of the Society of Fine Arts, Great Britain.

3. Personality.

Genius is two per cent inspiration and ninety-eight per cent perspiration is his theory.

He owns an immense laboratory and reads exhaustively before beginning his work.

He makes hundreds, even thousands, of experiments before he is confident of success.

He works fifteen hours a day. During vacation he refuses to talk business or science.

Edison began life as a trainboy. At 15 he edited and published the *Grand Trunk Herald*. He learned telegraphy from a man whose son he had saved. Lost several positions because of his dislike for routine and fondness for study. Named his children "Dot" and "Dash." Called "The Wizard of Menlo Park." "The young man who keeps the path to the patent office hot with his footsteps."

HISTORY

INTRODUCTION.

Many people regard history as merely dates and names. Others think of it as merely wars and their results. Both views have truth back of them; but both are very one-sided and imperfect conceptions. History is made by human beings in action. No one acts without a motive. History, therefore, brings into view human motives or incentives, what they lead people to do, and what results follow.

A single individual may play an important part in history, it is true. But that is because the individual represents some great principle or cause or is a great leader of men. It is the study of cause and effect which adds to the value of history and to its interest. It is not a dry study. It not only shows the motives influencing people and nations, and the results of their actions, but it shows how individuals and nations accomplish or try to accomplish the objects they have in view. It shows, also, the steps taken to defeat some enterprise or aim.

It deals with commerce, with war, with government, with schemes and plans, with intrigue, with noble and patriotic men and women, with ignoble and selfish men and women, with great causes working out results along different lines, with conflicts of national policy and national as well as individual diplomacy, with the growth and decay of nations and of institutions—in short, with all those things which it should be a delight to study.

United States history begins before there was any United States government. This is a great nation—now one of the greatest nations of the world. Once it was a little, weak group of discontented, jealous, many-sided colonies. Is it not of interest to know what brought about the change? Is it not instructive to know what influences tied the states together into a Union so strong that even the great struggle and the great losses of the Civil War could not break it to pieces? Is it not valuable to know that every true American citizen loves the "Stars and Stripes" and never walks into a hall decorated with this banner without a feeling of pride and a conciousness of being part of a great nation?

These things are portrayed in a graphic and suggestive manner in the outlines, charts, maps, etchings, etc., given herewith. As the eye is always a great help to the mind in grasping a truth or fact that can be illustrated, no expense has been spared in the use of colored charts where these would add vividness to the presentation. Essentials only are given, leaving to the reader the pleasure and the profit of thinking or working things out in his own way. He who will follow these suggestions will not only see how the United States has become a great nation but he will also learn how modern development may be directed into right channels.

STEPS IN THE GROWTH OF CIVIL LIBERTY

1. The love of liberty was strong in the Angles and Saxons when they conquered England.
2. Henry I grants the "Charter of Liberties" in 1101.
3. King John, at Runnymede in 1215, grants "Magna Charta."
4. Firm establishment of House of Commons by Simon de Montfort in 1265.

(The English Parliament and constitutional freedom in Great Britain are usually credited to De Montfort.)

5. The "Petition of Rights," in 1628, forced from Charles I the acknowledgment of the privileges of the Commons and the rights of the people which he was violating. These were emphasized in America by the Massachusetts "Body of Liberties," 1641.

6. The "Habeas Corpus Act" of 1679 reaffirmed the principles set forth in Magna Charta, and fully defined the right of prompt trial, etc.

7. The "Bill of Rights," setting forth the fundamental rights of the people, was passed by the English Parliament after the Revolution of 1689.

8. The American colonies, in the resistance to the "Stamp Act" of 1765, affirmed the doctrine of "no taxation without representation."

9. The same colonies resisted the "Declaratory Act" of 1766 on the ground that it claimed the power to take from them the rights granted by the charters and bills mentioned above.

10. Assertion of the same rights in the resistance of the colonies to the "Duties Act" of 1767.

11. The "Declaration of Independence," issued by the colonists July 4, 1776, declared the right of the people to separate from a government which undertook to deprive them of their liberties and to form a government to protect those liberties.

12. The recognition of the new nation on Sept. 3, 1783.

13. The adoption of the United States Constitution in 1787 established a nation devoted to civil liberty.

14. The "Emancipation Proclamation," effective on Jan. 1, 1863, freed all slaves in states in rebellion.

15. The "Thirteenth Amendment" to the United States Constitution, adopted Dec. 18, 1865, declares: "Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States or any place subject to their jurisdiction."

OBJECTS OF INTEREST

"The Liberty Tree," a poem by Thomas Paine during the Revolutionary War.

"The Liberty Tree," an elm tree in Boston, Mass., on which were hung effigies of officials concerned in the Stamp Act.

"Liberty Bell," the famous bell on the dome of the old State House, Philadelphia, Pa., whose ringing announced the adoption of the Declaration of Independence.

"Statue of Liberty," a colossal statue on Bedloe's Island in New York Harbor, designed by Bartholdi, paid for by popular subscription in France, and unveiled on Oct. 28, 1886.

FIRST INHABITANTS

Cliff Dwellers

I. Race.
   1. American aborigines of unknown origin.
   2. Supposed to be ancestors of Pueblos.

II. Where Lived.
   1. In San Juan and neighboring valleys; on lofty plateaus, etc. (N. Mex., Colo., Ariz., Utah.)
   2. In the vicinity of the Rio Grande and Colorado Rivers.
   3. In Mexico.

III. Homes.
   1. Of wood or skins, usually built on cliffs difficult of access.
   2. Of caves, sometimes with several rooms, hewn in rock.

IV. Occupations.
   1. Fishing.
   2. Hunting.
   3. Cultivation of the soil.
   4. Decorating pottery or other earthenware, and crude ornamentation of homes and weapons.

5. Irrigation, constructing reservoirs, etc.

V. Industries.
1. Making and marking rude weapons.
2. Making utensils, pottery, etc.
3. Forming simple paints.
4. Quarrying or hewing stone.
5. Light farming.
6. Constructing homes and defenses.

VI. Remains.
1. Cliff and cave homes showing some knowledge of architecture.
2. Decorated pottery and ornamented weapons, showing some acquaintance with art and fondness of display.
3. Stone weapons (mainly granite or flint), also bone weapons, but none of metal.
4. In southern Arizona and Mexico some indication of simple crops and of domestic animals.
5. Their homes, in manner of construction, show fear of some enemy.

The Mound Builders

The antiquities of the Mound Builders are even more strange than those of the Cliff or Cave Dwellers. For the view that they even preceded the inhabitants of the rocky fortresses of the southwest in their occupation of this country there is strong probability. Others hold that the two races were contemporaneous and were threatened and finally destroyed by their warlike neighbors. The history of neither people is in our possession, and, except as it may be inferred from their remains, is forever lost. Their structures, their implements, the minerals, which they knew and used—these are facts; all else is inference or tradition. One thing alone seems assured with regard to the American aborigines—or those whose life preceded what is frequently termed "aboriginal America"—that the race is a distinct type, taking its origin (if a common one) from the period when mankind was in its infancy.

As to the Mound Builders:

I. Origin, Location, Disappearance.
1. Origin—unknown, but distinct.
2. General residence—in the valleys of the Mississippi River and its tributaries. Especially numerous in Ohio, Illinois, and Missouri.
3. Special residence—near Wheeling, W. Va.; Marietta, Newark, Adams and Butler Counties, Ohio; Cahokia, Ill.; St. Louis, Mo. (Mound City); Iowa, Wisconsin, Minnesota, and forests bordering on the Gulf of Mexico, etc.
4. Disappearance — unknowr, but supposed to be due to attacks of warlike hunting tribes. Might have been due to migration or disease. No record.

II. Character of Their Structures.
1. Mounds of earth, or tumuli, in various shapes.
2. Evidently not intended to be temporary, but to remain.
3. Show knowledge, skill, application, patience.
4. Indicate a large and widespread population of one race, one purpose, one manner of life.
5. Built for various uses:
   a. For defense.
   b. For worship.
   c. For watch-towers.
   d. For altars or crematories.
   e. For some allegorical representation (in shape of animals, etc. Query: Where did they get their knowledge of an elephant?).
   f. For sepulture. The very large mounds were evidently tombs of rulers or persons of note.

III. Civilization of the People.
1. Shown by the kind of construction—accurate as to geometrical form, often immense in size, systematic in arrangement, well adapted in purpose.

CHART OF DISCOVERIES

COLONIES

1600

VIRGINIA

07. Jamestown.
08. John Smith, Gov.
10. Lord Delaware.
12. Tobacco.
19. Legislative Assembly.
19. Slavery introduced.
21. Written Const
22. Indian Massacre.
24. Overthrow of London Co.

1625

29. Sir John Harvey
42. Gov Berkeley
44. Indian Massacre.

1650

51. Navigation Acts.
55. Coming of Cavaliers.
76. Bacon's Rebellion.
77. Proprietary Gov't.
88. Free Schools.
93. Wm. and Mary's College.
98. Williamsburg the Capital.

1675

1700

1725

32. Birth of Washington.

1750

54. Washington Com.-in-Chief
65. Patrick Henry (Virginia Resolutions)
75. Delegation to Continental Congress

1775

MARYLAND

34. St. Mary's (Catholics).
38. General Assembly
49. Toleration Act.
49. Annapolis founded
55. Civil War.
91. Royal Gov't.
15. Proprietary Gov't.
63. Mason and
67. Dixon's Line.
73. Committees of Correspondence.

N. CAROLINA

53. First Settlement.
63. Grant to Proprietors.
69. "Grand Model" a Failure.
90. Southel's Rebellion.
91. Union of Carolinas under one Gov't.
12. Carolinas Divided.
29. N. and S. Carolina Royal Provinces.
50. Largest Producer of Naval Stores.

NEW YORK

09. Hudson River.
14. New Amsterdam.
21. Dutch West India Co.
23. Colony formed.
29. Patroon System.
33. Wouter Van Twiller.
47 Peter Stuyvesant.
55. Dutch Conquest of New Sweden.
64. English Conquest (Named New York).
73. Retaken by Dutch.
74. Restored to Eng.
75. Andros, Gov.
83. First Assembly
90. Schenectady Intercolonial Assembly
97 Capt. Wm. Kidd.
52. Gov Crosby
34. Freedom of Press.
41 Negro Plot.
54. Albany Congress.
54. Fr and Ind. War
55. Lake George.
58. Ft. Ticonderoga.
65. Colonial Convention
74. Declaration of Rights.
75 Ticonderoga taken

NEW JERSEY

17. Bergen.
23. English.
32. Fort Nassau Destroyed.
55. Stuyvesant
64. Named New Jersey
64. Elizabethtown.
65. Slavery
73. East and West Jersey
74. Sold to the
77. Quakers.
81. Salem Assembly
88. Charter Annulled
02 Jerseys United.
38. Royal Colony

DELAWARE

31. Dutch at Lewes.
38. New Sweden.
55. Stuyvesant's Expedition.
64. Changes Hands (Dutch to Eng.)
82. Purchased by Penn
03 Separate Assembly

COLONIES

MASSACHUSETTS

20 Plymouth.
23. New Hampshire Settled
26. Maine Settled.
28. Mass. Bay Colony.
33. Boston Founded.
36. Harvard College.
37 Pequot War.
39. Printing Press.
41 N. H. Annexed.
43. Union of Colonies
47 Public Schools Established.
51 Maine Colonies Annexed.
56. Quakers persecuted.
75. King Philip's War
84. Charter forfeited
86. Andros.
89. King Wm's. War.
92. Salem Witchcraft.
92. Union of Colonies.
02. Indian Troubles
02. Queen Anne's War.
44. King George's War.
45. Louisburg.
54. French and Indian War.
59. Quebec captured.
70. Boston Massacre
73. Boston Tea Party
75. Lexington and Bunker Hill.

NEW HAMPSHIRE

79 Royal Province.
86 Part of Dominion of New England
92. Again Separated
99 United.
41 Final Separation

CONNECTICUT.

33. Hartford.
37 Pequot War.
38. New Haven.
62 Charter Granted
84 Quarrel with Mass
87 Andros (Charter Oak)
92 New Charter
01 Yale College.
39. Fundamental Orders.

RHODE ISLAND

36. Providence (Roger Willlams)
38. Newport
39 Baptist Church
47 Code of Laws
63 Charter of Charles II
64. Brown University
75. King Phillip's War
87 Joined to New York.
00. Pirates hung
72. The Gaspee burned.

S. CAROLINA

70. Settled by English
71. Slavery
80. Charleston founded
00. Public Library (Charleston)
02. Expedition against St Augustine
06. Spanish Invasion
10. Free Schools established
29. Royal Province

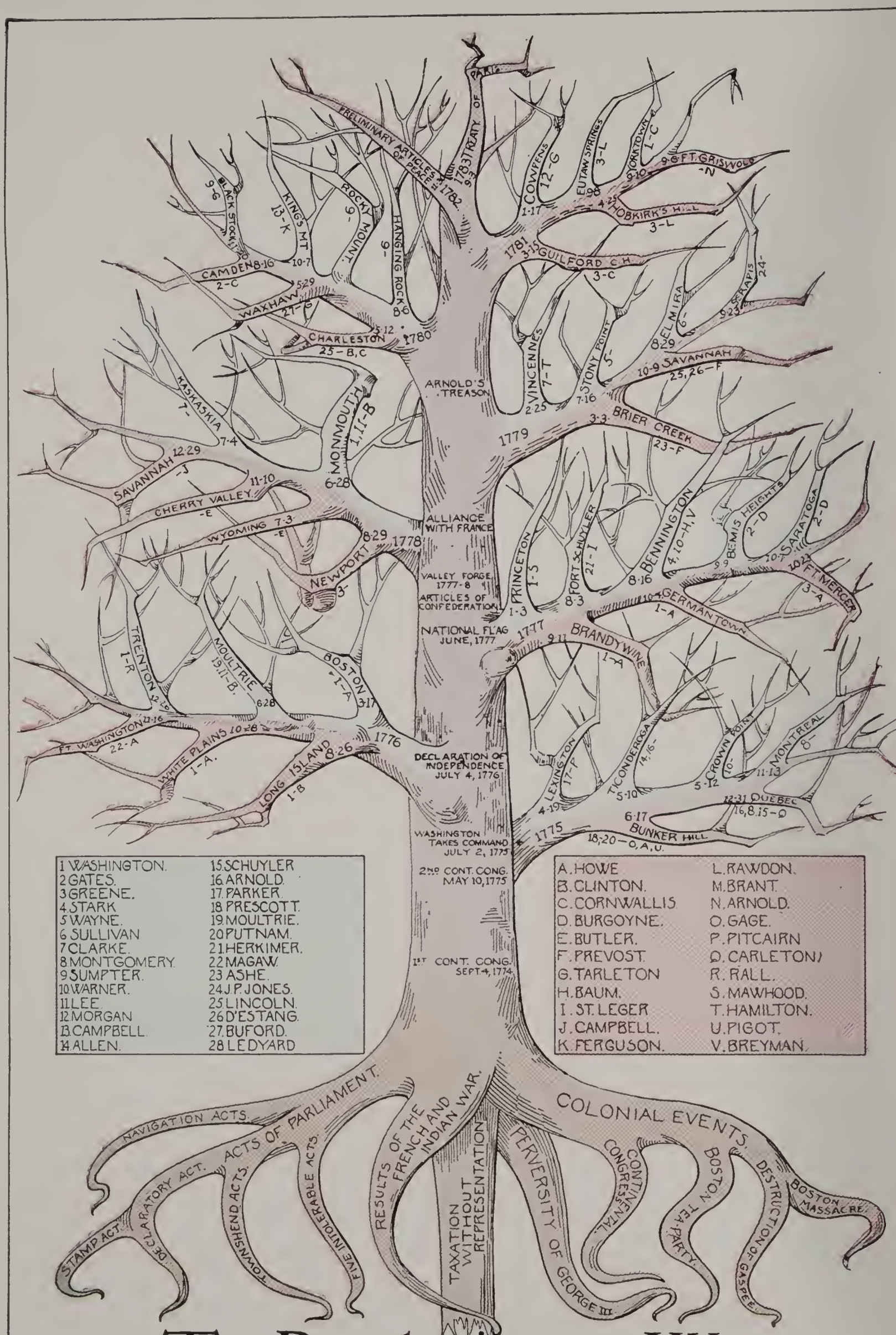
PENNSYLVANIA

38 Swedes.
55. Dutch
80. William Penn.
82. Indian Treaty.
83. Delaware added
01 New Constitution
54. Era of Franklin.
55. Braddock's Defeat (Fort Duquesne)
74 First Cont. Cong.
75. Second Cont. Cong.

GEORGIA

33. Savannah.
35. The Wesleys.
42. Spanish Invasion.
52. Royal Province

The Revolutionary War



ADMINISTRATIONS.

		1789	1797	1801	1809	'17
EXECUTIVE	PRES	WASHINGTON	ADAMS	JEFFERSON	MADISON	
	MESSAGES AND PAPERS	FAREWELL ADDRESS	ON FRENCH INSULT	FIRST WRITTEN MESSAGE	WAR WITH ENGLAND	
	CABINET LEADERS	JEFFERSON	PICKERING WOLCOTT	MADISON DEARBORN		
LEGISLATIVE	NO. OF MEMBERS	SENATE 26 HOUSE 65	SENATE 32 HOUSE 105	SENATE 32-34 HOUSE 141	SENATE 34-38 HOUSE 181	
	PRES. OF SENATE	ADAMS	JEFFERSON	BURR CLINTON	CLINTON GERRY	
	SPEAKER OF HOUSE	MUHLENBERG, TRUMBULL, DAYTON	SEDGWICK	MACON VARNUM	CLAY CHEEVES	
	LEADERS	MADISON	GERRY	CLAY J.Q. ADAMS	CALHOUN CLAY (WEBSTER)	
	LAWS	REVENUE BILL NATURALIZATION LAW	ALIEN AND SEDITION ACTS	EMBARGO ACT NON-INTERCOURSE ACT	NON-INTERCOURSE ACT REPEALED. STATE BANKS CHARTERED	
JUDICIAL	CHIEF JUSTICE	JAY RUTLEDGE ELLSWORTH	ELLSWORTH	MARSHALL		
	DECISIONS	CHISHOLM VS. THE STATE OF GEORGIA		MARBURY VS. MADISON		
LEADING EVENTS	WARS AND RIOTS	INDIAN WHISKEY REBELLION	QUASI	TRIPOLI	INDIAN WAR. WAR OF 1812	
	INTERNATIONAL RELATIONS	TREATY WITH ENGLAND TREATY WITH SPAIN	TREATY WITH FRANCE	LOUISIANA PURCHASE "RIGHT OF SEARCH"	TREATY OF GHENT	
	INDUSTRIAL PROGRESS	INVENTION OF COTTON GIN	LOCOMOTIVE PLOW	STEAMBOAT, BLOW-PIPE, STEAM DREDGE	BREECH-LOADING RIFLE. PRINTING COTTON GOODS	
	INTERNAL AFFAIRS	PETITION TO ABOLISH SLAVERY	DEATH OF WASHINGTON	SLAVE TRADE ABOLISHED LEWIS AND CLARK EXPED.	WASHINGTON BURNED HARTFORD CONVENTION	
	NEW STATES	VERMONT KENTUCKY TENNESSEE		OHIO	LOUISIANA INDIANA	
	FOREIGN EVENTS	FRENCH REVOLUTION	FRENCH DIRECTORY OVERTHROWN	MILAN DECREE	REV. IN VENEZUELA. MEXICAN UPRISING.	

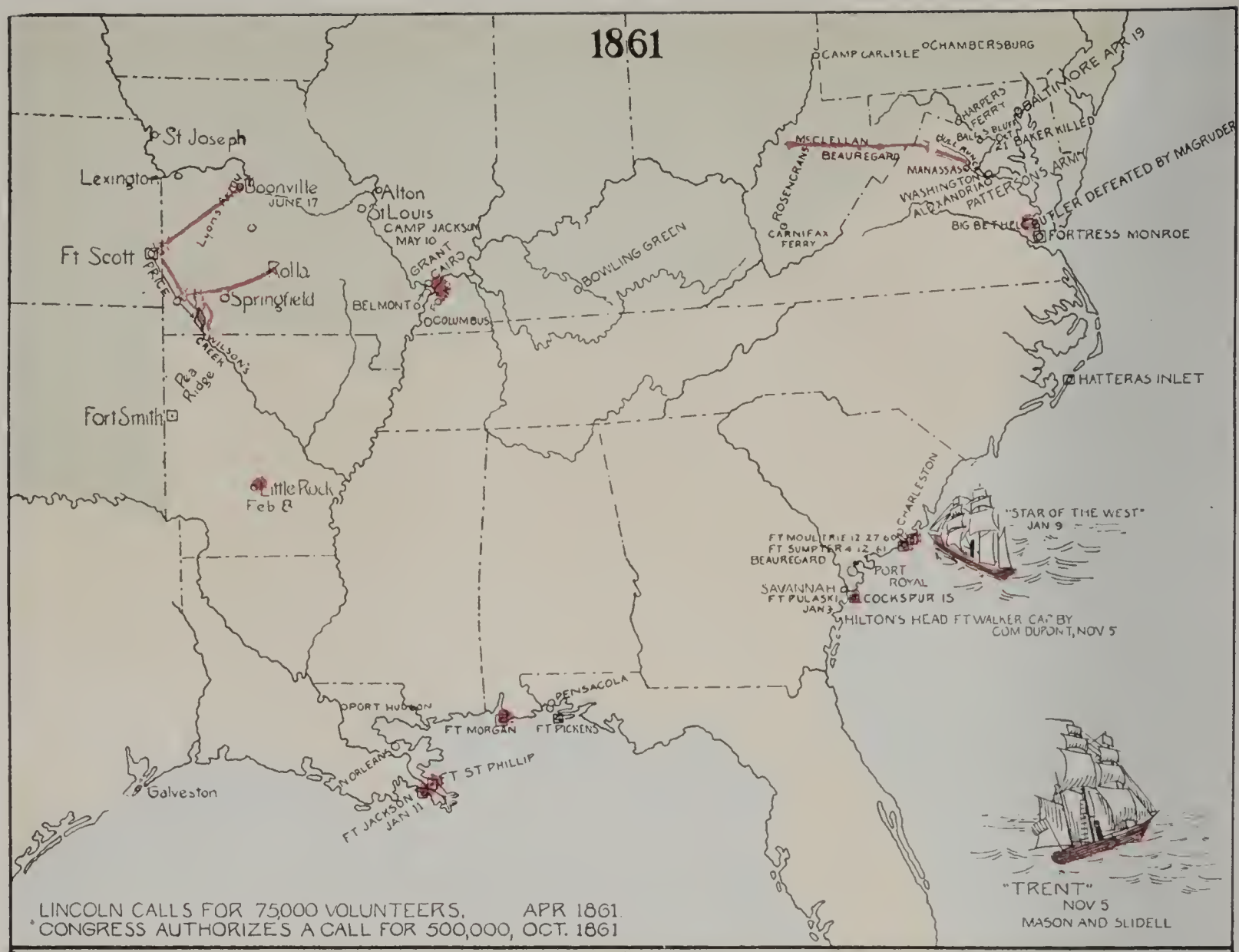
ADMINISTRATIONS.

1817 — 1825 — 1828 — 1837 — 1841 — 1845 — '49

PRES.	MONROE	ADAMS	JACKSON	VAN BUREN	HARRISON TYLER	POLK
MESSAGES	MONROE DOCTRINE	ROADS AND CANALS	BANK MESSAGE	INDEP. TREASURY		TARIFF MESSAGE
CABINET	ADAMS CALHOUN	CLAY RUSH	VAN BUREN LIVINGSTON BERRIEN	FORSYTH	WEBSTER CALHOUN	BUCHANAN
NO. OF MEMBERS	SENATE 38-48 HOUSE 213	SENATE 48 HOUSE 213	SENATE 48-52 HOUSE 240	SENATE 52 HOUSE 240	SENATE 52 HOUSE 223	SENATE 58 HOUSE 223
PRES. OF SENATE	TOMPKINS	CALHOUN	CALHOUN VAN BUREN	JOHNSON	TYLER SOUTHARD MANGUM	DALLAS
SPEAKER OF HOUSE	CLAY TAYLOR BARBOUR	TAYLOR STEVENSON	BELL POLK	HUNTER	WHITE JONES	DAVIS WINTHROP
LEADERS	CLAY WEBSTER JACKSON	VAN BUREN BUCHANAN	WEBSTER, CLAY, HAYNE, BENTON.	WRIGHT ADAMS	CLAY WEBSTER	WILMOT CORWIN
LAWS	TENURE OF OFFICE ACT	TARIFF OF 1828	U.S. BANK VETOED FORCE ACT	SUB-TREAS. BILL	ANNEXATION BILL	WILMOT PROVISO
CHIEF JUSTICE	MARSHALL	MARSHALL	TANEY		TANEY	
DECISIONS	DARTMOUTH COLLEGE McCULLOCH VS. MARYLAND					
WARS	SEMINOLE		BLACKHAWK. SEMINOLE.	SEMINOLE	DORR REBELLION	MEXICAN
INTERNATIONAL RELATIONS	TREATY WITH CANADA		TREATY WITH BRAZIL		WEBSTER ASHBURTON	TREATY OF HIDALGO
INDUSTRIAL PROGRESS	FIRST STEAM VOYAGE ACROSS ATLANTIC	PLANING MACHINE. PASSENGER TRAIN	COLT'S REVOLVER TYPEWRITER.	MATCHES. TELEGRAPH	USE OF ETHER	
INTERNAL AFFAIRS	FLORIDA ACQUIRED MISSOURI COMPROMISE	DEATHS OF ADAMS JEFFERSON	RISE OF AMERICAN LITTERATURE	INDIANS REMOVED TO IND. TER.	POSTAGE STAMPS	DIS OF GOLD IN CALIFORNIA
NEW STATES	MISS., ILL., ALA., ME., MO.		MICHIGAN ARKANSAS		TEXAS FLORIDA	IOWA WISCONSIN
FOREIGN EVENTS	MEXICAN REVOLUTION		IND. OF MEXICO IND. OF TEXAS	CAN REB. VICTORIA CROWNED	FED UNION IN C.A. DISSOLVED	

ADMINISTRATIONS.

	1849	1853	1857	1861	1869	1877	'81
PRES.	TAYLOR FILLMORE	PIERCE	BUCHANAN	LINCOLN JOHNSON	GRANT		HAYES
MESSAGES		"POPULAR SOVEREIGNTY"	REVOLUTIONARY MESSAGE	EMANCIPATION PROC. AMNESTY	AUTOBIOGRAPHY		
CABINET	MEREDITH WEBSTER	MARCY DAVIS	CASS DIX	SEWARD CHASE McCULLOCH	FISH SHERMAN BREWSTER		EVARTS SHERMAN
NO. OF MEMBERS	SENATE 62 HOUSE 237	SENATE 62 HOUSE 237	SENATE 66 HOUSE 243	SENATE 50 HOUSE 243	SENATE 74 HOUSE 293		SENATE 76 HOUSE 293
PRES. OF SENATE	FILLMORE KING ATCHISON	KING	BRECKENRIDGE	HAMLIN FOSTER JOHNSON WADE	COLFAX WILSON		WHEELER
SPEAKER OF HOUSE	COBB BOYD	BOYD BANKS	ORR PENNINGTON	GROW COLFAX	BLAINE KERR	RANDALL	
LEADERS	DOUGLAS DAVIS	CASS STEPHENS	SEWARD CAMERON	STEVENS MORRILL SUMNER CRITTENDEN	MORTON SCHURZ WILSON TRUMBULL		EDMONDS BLAND
LAWS	OMNIBUS BILL	KANSAS-NEBRASKA ACT	LAND GRANTS	INCOME TAX LAW CIVIL RIGHTS BILL	SALARY ACT		ANTI-CHINESE BILL
CHIEF JUSTICE				CHASE	WAITE		
DECISIONS			DRED SCOTT DECISION				
WARS		BORDER WARFARE	J. BROWN'S RAID MORMONS	CIVIL WAR	MODOC SIOUX		NEZ PERCE
INTERNATIONAL RELATIONS	CLAYTON-BULWER TREATY	TREATY WITH JAPAN	TREATY WITH CHINA	BURLINGAME TREATY	TREATY OF WASHINGTON		NEW CHINESE TREATY
INDUSTRIAL PROGRESS	NICARACUA CANAL TREATY	TYPE SETTING MACHINE	SLEEPING CAR ATLANTIC CABLE	REPEATING RIFLES GATTLING GUNS	FIRE EXTINGUISHER TELEPHONE CREMATORY		STEAM HEATING. PHONOGRAPH
INTERNAL AFFAIRS	FUGITIVE SLAVE LAW	GADSDEN PURCHASE	SECESSION	ATLANTIC CABLE LAID ALASKA	PACIFIC RAILROAD. CHICAGO FIRE. WEATHER BUREAU		ELEC. LIGHT. LIFE SAVING STATIONS.
NEW STATES	CALIFORNIA		MINNESOTA KANSAS OREGON	WEST VIRGINIA NEVADA NEBRASKA	COLORADO		
FOREIGN EVENTS	CUBAN REVOLUTION	OSTEND MANIFESTO	3-YEAR WAR IN MEXICO	FENIAN RAID IN CANADA SOUTH AMERICAN WARS	FRANCO-GERMAN WAR		FAMINE IN BRAZIL


1861
CAMP CARLISLE
CHAMBERSBURG
BALTIMORE APR 19
HARPERS FERRY
BALL'S BLUFF OCT 21
BAKER KILLED
McCLELLAN
BEAUREGARD
MANASSAS
WASHINGTON
ALEXANDRIA
PATTERSON'S ARMY
BUTLER DEFEATED BY MAGRUDER
BIG BETHEL
FORTRESS MONROE
ROSENCRANS
CARNIFAX FERRY
BOWLING GREEN
St Joseph
Lexington
Boonville JUNE 17
Lyon's Army
Alton
St Louis
CAMP JACKSON MAY 10
GRANT
CAIRO
Ft Scott
Price
Rolla
Springfield
BELMONT
COLUMBUS
WILSON'S CREEK
Pea Ridge
Fort Smith
Little Rock Feb 8
HATTERAS INLET
CHARLESTON
"STAR OF THE WEST" JAN 9
FT MOULTRIE 12 27 60
FT SUMPTER 4 12 61
BEAUREGARD
PORT ROYAL
SAVANNAH
FT PULASKI JAN 3
COCKSPUR 15
HILTON'S HEAD FT WALKER CAP BY COM DUPONT, NOV 5
PORT HUDSON
FT MORGAN
PENSACOLA
FT PICKENS
NORLEANS
FT ST PHILLIP
FT JACKSON JAN 11
Galveston
"TRENT" NOV 5 MASON AND SLIDELL
LINCOLN CALLS FOR 75,000 VOLUNTEERS, APR 1861
CONGRESS AUTHORIZES A CALL FOR 500,000, OCT. 1861
1862
HAGERSTOWN
ANTIETAM
HARPERS FERRY
WINCHESTER
WASHINGTON
FREDERICKSBURG
RICHMOND AUG 30
PERRYVILLE OCT 8
BOWLING GREEN
BUELL
BRAGG
SMITH
KNOXVILLE
MURFRESBORO DEC 31
ROSECRANS
FT DONELSON FEB 16
FT HENRY
ISLAND NO 10 APR 7
PEA RIDGE MAR 8
CURTIS
MEMPHIS JUNE
SHILOH APR
CORINTH OCT 4
IUKA SEPT 19
CHATTANOOGA
FARRAGUT'S FLEET
VICKSBURG
PORT HUDSON
PENSACOLA
NORLEANS
FT JACKSON
FT ST PHILLIP
FARRAGUT APR 26
PORTER'S FLEET
MAGRUDER'S FLEET
Galveston
FT LEAVENWORTH
PILOT KNOB
IRONTON
ST LOUIS
HALLECK
CAIRO
BELMONT
COLUMBUS
MONITOR AND MERRIMAC FORTRESS MONROE
NORFOLK
JAMES R
RICHMOND
SEVEN PINES
BURNSIDE
ROANOAN IS
NEWBERN
BEAUFORT
FORT MACON APR 25
PORT ROYAL
SAVANNAH
HUNTER
FT PULASKI APR 11
FERNANDINA FEB 25
JACKSONVILLE
ST AUGUSTINE
MONITOR
MERRIMAC (MAR 9)
BEGINNING OF OPERATIONS 1862
FEDERAL TROOPS EST. 500,000
CONFEDERATE TROOPS EST 350,000

CIVIL WAR.

1863

HARRISBURG
COLUMBIA
CHAMBERSBURG
GETTYSBURG July 3
LEE
MEADE
WINCHESTER
MAY 3
HOOKER
CHANCELLORSVILLE
FREDERICKSBURG
LEE
BURNSIDE
PETERSBURG
LONGSTREET
KNOXVILLE
NASHVILLE
DUCK
MURFREESBORO
COLUMBIA
SHELBYVILLE
TULLAHOMA
ROSECRANS
CHATTANOOGA
GRANT
MEMPHIS
CHICKAMAUGA
SEPT 12 20
HELENA
HOLLY SPRINGS
DALTON
FT HINDMAN
ATLANTA
SHERMAN'S ARMY
CHARLESTON
FT WAGNER SEPT. 6
GILMORE
VICKSBURG JULY 4
JACKSON
GRANT
SAVANNAH
FT. McALISTER
DUPONTS FLEET JAN. 27 (5 VESSELS)
DRAYTON MCH. 3. (3 MONITORS)
MOBILE
PORT HUDSON
JULY 8
JACKSONVILLE
BANKS
NEW ORLEANS

EMANCIPATION PROCLAMATION OF PRESIDENT LINCOLN, JAN. 1.
GETTYSBURG AND VICKSBURG DECISIVE CONFLICTS, JULY 3 AND 4.

GETTYSBURG

1864-1865

BURNT BY EARLY
JULY 30 1864
CHAMBERSBURG
EARLY
WINCHESTER
SEPT-OCT 1864
WASH
CHANCELLORSVILLE
SPOTTSYLVANIA
FREDERICKSBURG
COLD HARBOR
APPOMATTOX
APR 9 C H
RICHMOND
PETERSBURG
RALEIGH
GOLDSBORO
SHERMAN
FAYETTEVILLE
BUTLER
DEC 1864
NASHVILLE
DEC 15 16 '64
CHATTANOOGA
APR 12 '64
FT PILLOW
MEMPHIS
LITTLE ROCK
CAMDEN
PRICE
DALTON
FT FISHER
WILMINGTON
PORTER
JAN 1865
COLUMBIA
WILSON
HOOD
ATLANTA
SEPT 2 64
SHERMAN
MONTGOMERY
WEST POINT
MACON
CHARLESTON
SHREVEPORT
VICKSBURG
JACKSON
BRUINSBURG
SELMA
APR '65
COLUMBUS
APR '65
SAVANNAH
DEC 21 '64
FORT McALISTER
12-13-'64
FLEET
FORT DE RUSSY
MCH 14 '64
MOBILE
IRWINSVILLE
CAP JEFF DAVIS MAY 10 1865
FT MORGAN
AUG 23 '64
FT GAINES
AUG 7 1864
FARRAGUT'S FLEET
AUG. 5, 1864

FEDERAL DEBT JAN 1864, $1,300,000,000
GRANT, MADE LIEUT. GENERAL IN MARCH, ASSUMES ENTIRE COMMAND
INTERVIEW OF VICE PRES. STEPHENS AND PRES. LINCOLN, FEB. 1865.
PRES. LINCOLN ASSASSINATED, APR. 14, 1865.

SURRENDER OF GEN LEE.

CIVIL WAR.

ADMINISTRATIONS.

	1881	1885	1889	1893	1897	1905	1909
PRES.	GARFIELD ARTHUR	CLEVELAND	HARRISON	CLEVELAND	McKINLEY	ROOSEVELT	TAFT
MESSAGES	CIVIL SERVICE		RECIPROCITY	VENEZUELA	PANAMA CANAL	TRUSTS	MONOPOLIES
CABINET	BLAINE LINCOLN	BAYARD FAIRCHILD.	BLAINE ELKINS	OLNEY CARLISLE	ROOT WILSON DAY HAY	TAFT ROOT	KNOX MACVEAGH
NO. OF MEMBERS	SENATE 76 HOUSE 332	SENATE 76 HOUSE 332	SENATE 88 HOUSE 357	SENATE 88 HOUSE 357	SENATE 90 HOUSE 386	SENATE 92 HOUSE 386	SENATE 92 HOUSE 391
PRES. OF SENATE	ARTHUR DAVIS EDMUNDS	HENDRICKS	MORTON	STEVENSON	HOBART ROOSEVELT	FAIRBANKS	SHERMAN
SPEAKER OF HOUSE	KEIFER. CARLISLE.		REED. CRISP.	REED.	HENDERSON. CANNON		CANNON CLARK
LEADERS	PENDLETON CONKLIN	LOGAN GORMAN	McKINLEY SHERMAN	WILSON HILL	DINGLEY WILLIAMS HANNA HOAR	LODGE TILLMAN	ROOSEVELT LAFOLLETTE
LAWS	CIVIL SERVICE CHINESE BILL LETTER POSTAGE	INS. COM ACT DAWE'S BILL PRES. SUCCESSION	INTERNATIONAL COPYRIGHT LAW	SHERMAN LAW REPEALED WILSON BILL	CHINESE EXCLUSION BILL	PURE FOOD LAW MEAT INSP. BILL	PAYNE-ALDRICH TARIFF ACT
CHIEF JUSTICE	WAITE	FULLER				FULLER	WHITE
DECISIONS				INCOME TAX	NORTHERN SECURITIES		TRUST CASES
WARS	APACHES CAPTURED	ANARCHIST RIOTS	SIOUX WAR	COAL STRIKES RY. STRIKES	SPANISH-AMERICAN PHILIPPINE	SPRINGFIELD RIOT	
INTERNATIONAL RELATIONS	TREATY WITH CHINA	EXTRAD. TREATY C-BAYARD TREATY	SAMOAN TREATY RECIP TREATY		ARBITRATION TREATY HAY-PAUNCEFOTE TREATY	HAY-VARILLA TREATY	PEACE CONF. RUSSIAN TR
INDUSTRIAL PROGRESS	FLYING MACHINE		NATURAL GAS SILVER MINING	NIAGARA FALLS HARNESSED	LIQUIFIED AIR WIRELESS TELEGRAPHY	AEROPLANE	AUTOMOBILE INDUSTRY
INTERNAL AFFAIRS	DEATH OF GARFIELD	CHARLESTON EARTHQUAKE	JOHNSTOWN FLOOD	WORLD'S FAIR AT CHICAGO	BALTIMORE FIRE HAGUE PEACE CONFERENCE	PANIC 1907 PANAMA CANAL	16TH AMEND-MENT
NEW STATES		WASH. MONT. NO. AND SO. DAKOTA	IDAHO WYOMING	UTAH		OKLAHOMA	ARIZONA NEW MEXICO
FOREIGN EVENTS		EXCLUSION ACT IN CHINA	BRAZIL REPUB. BOXER REBEL	CUBAN REV.	BOER WAR	RUSSO-JAPANESE WAR	ACCESSION GEO. V. OF ENG.

ADMINISTRATIONS.

	1913	1921
PRES.	WILSON	HARDING
MESSAGES	NOTES ON SUBMARINES WAR MESSAGE	SHIP SUBSIDY
CABINET LEADERS	BRYAN McADOO LANSING BAKER	HUGHES HOOVER
NO. OF MEMBERS	SENATE 96 HOUSE 435	SENATE 96 HOUSE 435
PRES. OF SENATE	MARSHALL	COOLIDGE
SPEAKER OF HOUSE	CLARK	GILLETT
LEADERS	UNDERWOOD LODGE PENROSE JOHNSON	MANN BORAH
LAWS	UNDERWOOD TARIFF FEDERAL RESERVE ACT	FORDNEY TARIFF
CHIEF JUSTICE	WHITE	TAFT
DECISIONS	DANBURY HAT	CORONADO COAL
WARS	MEXICAN TROUBLE WORLD WAR	TURKISH- GREEK WAR
INTERNATIONAL RELATIONS	SUBMARINE WARFARE VERSAILLES CONFERENCE	DISARMAMENT CONFERENCE
INDUSTRIAL PROGRESS	EXPANSION OF FOREIGN TRADE MUNITIONS AVIATION	RADIO DE- VELOPMENT
INTERNAL AFFAIRS	FEDERAL CONTROL OF RAILROADS LIBERTY LOANS DRAFT PROHIBITION	STRIKES UNEM- PLOYMENT
CONSTIT. AMENDMENTS	17TH DIRECT ELECTION SENATE 18TH PROHIBITION 19TH WOMEN SUFFRAGE	
FOREIGN EVENTS	RUSSIAN COLLAPSE GERMAN REPUBLIC LEAGUE OF NATIONS	IRISH FREE STATE FASCISTI RULE IN ITALY

WHIG
DEMOCRAT
REPUBLICAN

FEDERALIST
ANTI-FEDERALIST
DEMOCRATIC-REPUBLICAN

NO. OF ADMNS	PRESIDENTS	STATE	YEAR		TOTAL EL.VOTE	NO. OF REPTS	VICE-PRESIDENTS	NO. OF STATES
1	WASHINGTON	VA	1789	WASHINGTON 69	73	53	ADAMS	13
			1793	CLINTON 50 / WASHINGTON 132	135	105	ADAMS	15
2	ADAMS	MASS	1797	JEFFERSON 68 / ADAMS 71	138	106	JEFFERSON	16
3	JEFFERSON	VA	1801	JEFFERSON 73 / ADAMS 65	138	106	BURR	16
			1805	JEFFERSON 162 / PINCKNEY 14	176	142	CLINTON	17
4	MADISON	VA	1809	MADISON 122 / CLINTONIANS / PINCKNEY 47	176	142	CLINTON	17
			1813	MADISON 128 / PEACE PARTY / CLINTON 89	218	182	GERRY	18
5	MONROE	VA	1817	MONROE 183 / KING 34	221	183	TOMPKINS	19
			1821	MONROE 231	235	187	TOMPKINS	23
6	ADAMS J.Q.	MASS	1825	ADAMS 84 / JACKSON 99 / NATIONAL REPUBLICAN / CLAY 37 / CRAWFORD 46	261	213	CALHOUN	24
7	JACKSON	TENN	1829	JACKSON 178 / NULLIFICATION / ANTI-MASON / ADAMS J.Q 83	261	213	CALHOUN	24
			1833	JACKSON 219 / CLAY 49	288	240	VAN BUREN	24
8	VAN BUREN	NY	1837	VAN BUREN 170 / LOCO FOCO / WHIG / HARRISON 73	294	242	JOHNSON	25
9 10	HARRISON TYLER	OHIO VA	1841	VAN BUREN 60 / BARN BURNERS / HUNKERS / LIBERTY / FREE SOIL / HARRISON 234	294	242	TYLER	26
11	POLK	TENN	1845	POLK 170 / CLAY 105	275	223	DALLAS	26
12 13	TAYLOR FILLMORE	LA NY	1849	CASS 127 / SILVER GRAY / NOTHING / TAYLOR 163	290	230	FILLMORE	30
14	PIERCE	NH	1853	PIERCE 254 / FREE DEMOCRATS / ANTI-NEBRASKA / SCOTT 42	296	234	KING	31
15	BUCHANAN	PA	1857	BUCHANAN 174 / FREMONT 114	296	234	BRECKENRIDGE	31
16	LINCOLN	ILL	1861	DOUGLAS 39 / AMERICAN CONSTITUTIONAL UNION / BRECKENRIDGE 72 / LINCOLN 180	303	237	HAMLIN	33
17	LINCOLN JOHNSON	TENN	1865	McCLELLAN 21 / CONFEDERATE / LINCOLN 212	314	183	JOHNSON	36
18	GRANT	ILL	1869	SEYMOUR 80 / STRAIGHT / LIBERAL / GRANT 214	317	226	COLFAX	37
			1873	HENDRICKS 42 / TEMPERANCE / LABOR PARTY / GREENBACK / GRANGE / GRANT 286	366	292	WILSON	37
19	HAYES	OHIO	1877	TILDEN 184 / HAYES 185	369	293	WHEELER	38
20 21	GARFIELD ARTHUR	OHIO NY	1881	HANCOCK 155 / GARFIELD 214	369	293	ARTHUR	38
22	CLEVELAND	NY	1885	CLEVELAND 219 / PROHIBITION / MUGWUMP / BLAINE 182	401	325	HENDRICKS	38
23	HARRISON	IND	1889	CLEVELAND 168 / MUGWUMP / HARRISON 233	401	332	MORTON	38
24	CLEVELAND	NY	1893	CLEVELAND 277 / HARRISON 145	444	356	STEVENSON	44
25	McKINLEY	OHIO	1897	BRYAN 176 / PEOPLES / McKINLEY 271	447	357	HOBART	45
26	McKINLEY ROOSEVELT	NY	1901	BRYAN 155 / SOCIALIST LABOR / McKINLEY 292	447	357	ROOSEVELT	45
			1905	PARKER 140 / SOCIALIST / ROOSEVELT 336	476	386	FAIRBANKS	45
27	TAFT	OHIO	1909	BRYAN 162 / TAFT 321	483	391	SHERMAN	46
28	WILSON	NJ	1913	WILSON 435 / ROOSEVELT 88 / TAFT 8	531	435	MARSHALL	48
			1917	WILSON 277 / HUGHES 254	531	435	MARSHALL	48
29	HARDING	OHIO	1921	COX 127 / HARDING 404	531	435	COOLIDGE	48

2. Number and size of the structures show a large and resourceful population. Otherwise it could not support those engaged in building these earthworks.
3. Further indicated by the various arts which the Mound Builders displayed: in constructing irrigation canals; in raising crops; in painting their pottery; in the construction of their military defenses, temples, reservoirs, altars for religious rites, animal forms, etc.
4. Might be inferred also from their manufacture of carvings, utensils and weapons from granite, flint, mica, shells, stones, and copper; earthenware frequently of elegant design, of vases, and of wickerwork; and finally from their evidently designing some form of government which caused the people to act together.

IV. Antiquity of Mound Builders.
1. No traditions among the Indians point to the Mound Builders as their ancestors.
2. Great forest trees growing upon them show the age of the mounds.
3. None of the mounds are found upon the lower terraces of streams—showing that the people had disappeared before the rivers had cut that deep.
4. Skeletons, even in moist soil, will often last 1500 to 1800 years; in dry soil, often 2500 to 3500 years. The soil in the mounds is dry and the skeletons nearly decomposed, showing they must have been there 2000 or 3000 years.
5. No Indians ever found numerous enough, with sufficient skill, or with the disposition to support workmen building such structures.

North American Indians

I. The Name.
1. Due to the mistaken idea that this country, when discovered, was India.
2. Is applied in general to the inhabitants found in America by the first white settlers from Europe.
3. Does not mark a single nation divided into various tribes (as many of the tribal names now used are really terms of reproach or contempt, or due to some characteristic), but yet seems to belong to one race of people.

II. Racial Characteristics.
1. Black, coarse hair, and light, straight beard.
2. High cheekbones and prominent nose.
3. Small, dark, piercing eyes.
4. Color ranging from light copper to almost black.
5. A good friend; a dangerous enemy.
6. Crafty, shrewd, tenacious when he believes he is in the right or in power, yet with a disposition to nobility of manner and action.
7. Taciturn, stoical, opposed to manual labor as belonging to women, a good student of human nature. The Indian today is a man without a country.

III. First Arts and Occupations.
1. Agriculture. Grew corn, beans, squashes, tobacco, potatoes.
2. Manufacturing. Made tents and clothing from skins; utensils and weapons from wood, stone, and copper; few ornaments from shells, silver, gold, and bronze; canoes from bark or hollowed logs; women did some weaving and basket work and made pottery from clay.
3. Mining. Dug copper in Michigan.
4. Time mostly spent in hunting, fishing, games, and rude sports.

IV. Present Arts and Occupations.
1. Many still prefer to live a savage life.
2. Others are actively engaged in trade, in farming, in cattle-raising, in manufacturing, and in other industries.
3. Some still maintain the tribal relation; others have given up the tribal idea but try to maintain racial purity; and still others are gradually mingling with white blood.

V. Religion.
1. Belief in a Great Spirit and in a possible life in the Happy Hunting Grounds seemed general.
2. Evil spirits were thought to be appeased by sacrifice (human or animal).
3. Faith in another life was shown by placing food, weapons, and even the dead body of his warhorse upon the grave of a deceased warrior.

VI. Government.
1. Originally tribal; occasionally centralized.
2. Many tribes have disappeared or are represented by a few individuals only.
3. The United States government favors:
   a. The tribal relation.
   b. Gathering tribes upon reservations.
   c. Grants to be distributed periodically in compensation for property taken away.
   d. Efforts to civilize by schools of learning and by training in the manual arts and in scientific farming.
   e. Fostering the establishment of home life and good home influences.

VII. Indians in United States History.
1. They taught the first settlers how to cultivate corn, tobacco, and a few vegetables.
2. They also taught them how to cure skins for clothing and shoes, and how to trap the fur-bearing animals.
3. In many cases the whites repaid the Indians by cheating them in trades, by teaching them to drink, and by scheming to get their property from them—things unfortunately continued to this day.
4. The Indians were incited to many atrocities in the early wars by the French and the English, both of whom used them in contests.
5. In conflict with the white settlers or with the United States Government, the Indians have been active.
   a. In the Virginia massacres of 1622 and 1644.
   b. In the wars of New England with the Pequots in 1637, with the Narragansetts in 1643, and with King Philip in 1675.
   c. In the fierce war of the Tuscaroras with North Carolina in 1711, and of the Yamasees and their confederates with South Carolina in 1715.
   d. In the French and Indian War of 1754.
   e. In the Conspiracy of Pontiac in 1763.
   f. In the Revolutionary War the Six Nations sided with the British.
   g. In the Miami (Tecumseh) Rebellion of 1790-1813.
   h. In the Seminole War of 1817, and again in 1835.
   i. In the Black Hawk War of 1832.
   j. In various conflicts in Dakota and elsewhere.
   k. In the Modoc War, 1872-73.
6. At no time does the Indian appear as an unlifting influence. He seems neither to absorb nor to be absorbed. His future is a grave problem for history to solve.

Eskimos or Innuits

1. Where found? Number.
2. Description: body, legs, hands, feet, hair, eyes, nose, cheeks, race and color, habits.
3. Dwellings: difference between summer and winter homes? Where located? How erected?
4. Food: when obtained from polar animals, how obtained and what parts eaten? What of their fish food? What of food from explorers?
5. Clothing: materials; how made; sleeping bags; the hood cradle.
6. Industries: why confined to fishing and hunting?
7. Modes of travel: sledges, how made; boats, materials used.
8. Value of the Eskimo dog; uses to which he is put.

QUESTIONS

(1) Do you think the Eskimos have schools? Why?
(2) How long does day last in the Arctic regions?
(3) What wonderful sights do the Eskimos have that we only occasionally get for a very short time? (See Aurora Borealis.)
(4) Make a list of all the animals you can find in the Arctic regions. Make a similar list of all the plants. How many of these have you ever seen? What have you at home that is a product of any of these? What food of explorers is becoming popular with the Eskimos?
(5) Draw pictures of Eskimo sledges, houses, harpoons, and as many other things they use as you can.
(6) What games do the Eskimo children play?
(7) How do the people keep warm in their winter homes? Describe an Eskimo bed.
(8) Do they cook their food?
(9) What advantages have you over the Eskimos?

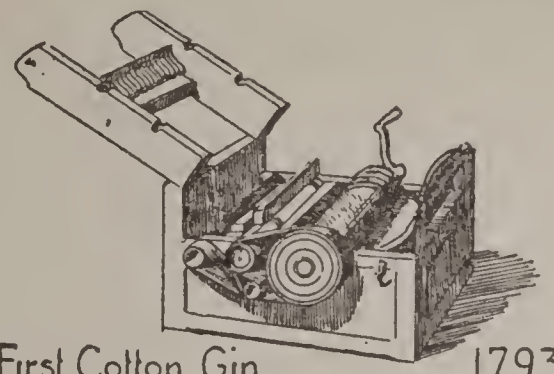
(To answer these questions, read the articles in the body of the work on Alaska, Greenland, Eskimo.)

SETTLEMENTS IN THE STATES

STATE	FIRST SETTLEMENT	DATE	INCIDENT
Alabama	Mobile	1702	French build fort.
Arizona	Tucson	1580	Spanish Mission.
Arkansas	Arkansas Post	1685	Bienville's French company.
California	San Diego	1768	Spanish priests from Mexico.
Colorado	Kearney City, Fort Laramie	1857	Gold discoveries.
Connecticut	Winslow	1636	Ministers and people.
Delaware	Wilmington	1637	Swedes and Finns.
Florida	St. Augustine	1565	Menendez for Spain first set.
Georgia	Savannah	1733	Jas. Oglethorpe, poor debtors.
Idaho	Coeur d'Alene	1882	Mineral discoveries.
Illinois	Kaskaskia	1678	Marquette establishes mission.
Indiana	Vincennes	1731	Settled by the French.
Iowa	Dubuque	1833 (1788)	Julian Dubuque, trader.
Kansas	Leavenworth	1854	Established as a fort.
Kentucky	Harrodsburg	1774	By Virginia emigrants.
Louisiana	New Orleans	1718	Bienville's development.
Maine	Saco	1623	Gorges, home and worship.

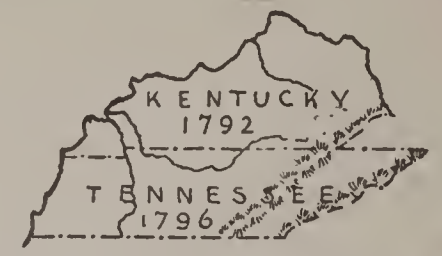
ADMINISTRATION OF WASHINGTON

1789 — 1797



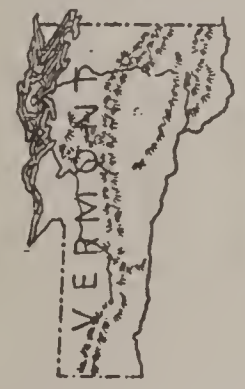
First Cotton Gin, 1793

First Census, 3,229,219 1790
Thanksgiving Day Proclamation. 1790



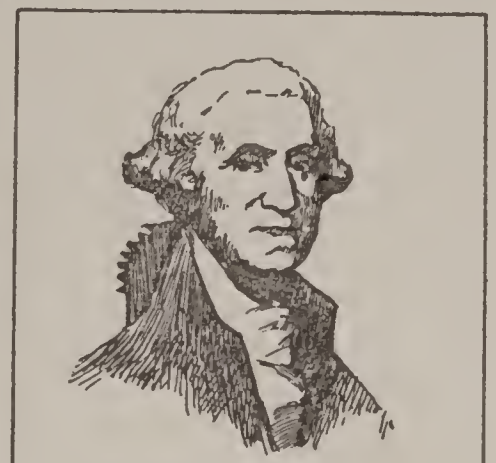
Admitted to the Union

The Discovery of Coal in Pennsylvania 1791
Whiskey Rebellion 1794



Admitted, 1791

First U.S. Bank 1794



Washington

Washington Monument

Mount Vernon

The First U.S. Mint, 1792

The District of Columbia located, 1790

Ratification of Constitution by Rhode Island, 1790
Ten Amendments to the Constitution, 1790

Discovery of the Columbia River 1792
Mississippi River Opened 1796

Beginning of Commerce

Foreign Relations

Proclamation of Neutrality 1793
Citizen Genet 1793-4
Jay's Treaty 1795
Treaty with Spain 1795
Treaty with the Barbary States 1795-7

Deaths

Benj. Franklin. 1790
Gen. Putnam 1790
John Paul Jones. 1792

Cabinet

Jefferson - Secy. of State
Hamilton - Secy. of the Treasury
Knox - Secy. of War
Randolph - Atty General
Osgood - Postmaster General. (not Cab. Mem.)

Indian Wars 1790-94

LLS

STATE	FIRST SETTLEMENT	DATE	INCIDENT
Maryland	St. Mary's	1634	Calvert develops grant.
Massachusetts	Plymouth	1620	Landing of Pilgrim Fathers.
Michigan	Sault Ste. Marie	1668	Jesuit missions.
Minnesota	Fort Snelling	1819	Built by Lieut. Pike.
Mississippi	Biloxi	1699	French build fort.
Missouri	St. Louis	1764	Spanish settlement.
Montana	Manuel Lisa	1807 (1861)	Gold discoveries.
Nebraska	Bellevue	1805-10	Free trading post.
Nevada	Genoa	1849	Built by Mormons.
New Hampshire	Dover Portsmouth	1623	Land grants.
New Jersey	Elizabethtown	1617 (1664)	Dutch, Swedes, English
New Mexico	Santa Fe	1582	Espejo founds a settlement.
New York	New York	1614	Formerly New Amsterdam.
North Carolina	Albemarle Sd.	1653	Virginia colonists.
North Dakota	Pembina	1859	French Canadians found.
Ohio	Marietta	1788	Territorial government set up.
Oklahoma	Guthrie	1889	Bought from the Indians.
Oregon	Astoria	1811	American Fur Company.
Pennsylvania	Chester	1643	Settled by Swedes.
Rhode Island	Providence	1636	Roger William seeks freedom.
South Carolina	Charleston	1670	Settled by the English.
South Dakota	Sioux Falls	1877 (1856)	Opening up new lands.
Tennessee	Wautauga	1769	Settled from N. C. and Va.
Texas	San Antonio	1714-16	Spanish mission.
Utah	Salt Lake City	1847	Mormon Settlement.
Vermont	Bennington	1749	Trading post.
Virginia	Jamestown	1607	Settlement by London Company.
Washington	Walla Walla	1836	Founded by immigrants.
West Virginia	(Northeast part)	1746	Grant to Lord Fairfax.
Wisconsin	Green Bay	1634 (1745)	Jesuit Mission.
Wyoming	Laramie Forks	1834	Fort and trade.

MINOR WARS OF THE UNITED STATES

INTER-COLONIAL WARS—WAR OF 1812—MEXICAN WAR—SPANISH-AMERICAN WAR —SMALL INTER-COLONIAL WARS

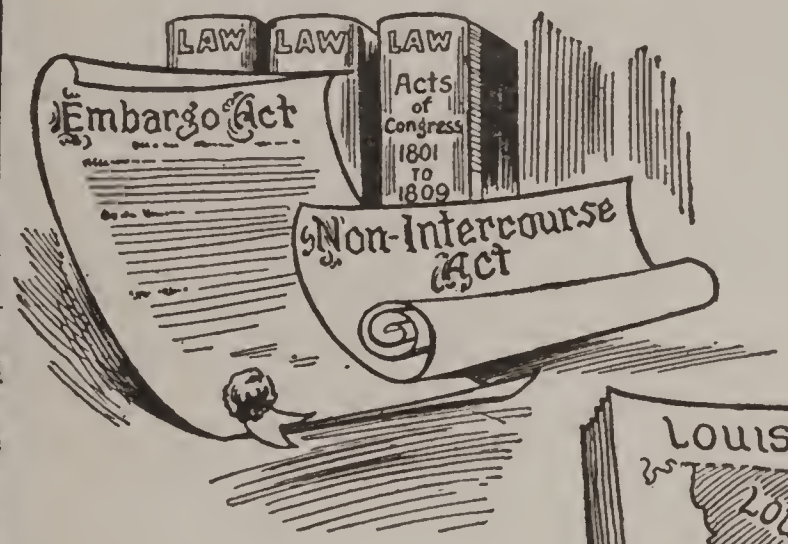
I. KING WILLIAM'S WAR (War of the League of Augsburg), 1689-97.
   1. Causes.
      a. Rivalry of France and England.
      b. Louis XIV's support of the English Stuarts.
   2. Parties in the New World.
      a. French, supported by the Abenaki Indians.
      b. English, supported by the Iroquois.
   3. Campaigns.
      a. French massacres at Schenectady; Salmon Falls, Mass.; Casco Bay, Me., 1690.
      b. English capture of Acadia and Port Royal; attack upon Quebec.
      c. Recapture of Acadia by the French, 1691.
   4. First Colonial Congress, March, 1690.
      a. Cause: massacre at Schenectady.
      b. Colonies represented: Massachusetts, Plymouth, Connecticut, and New York.
      c. Result: authorization of Colonial army for invasion of Canada.

1801 THOMAS JEFFERSON 1809

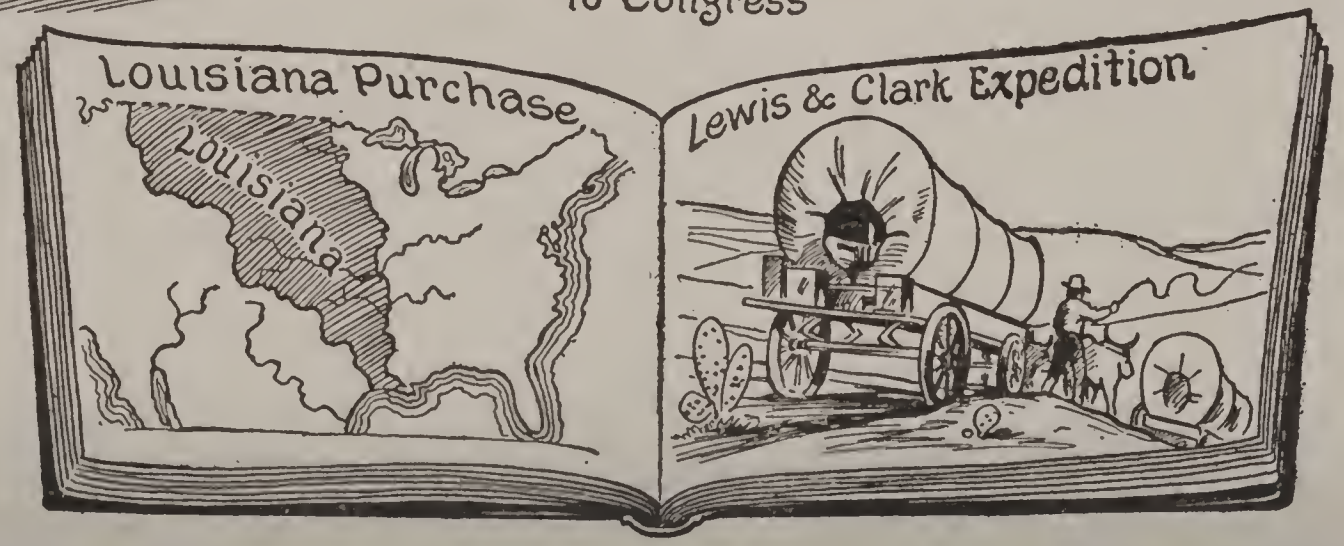
Fulton's Steamboat

First Written Message to Congress

War with Tripoli



"Right of Search" Claimed by British



Slave Trade Abolished

Ketchum.

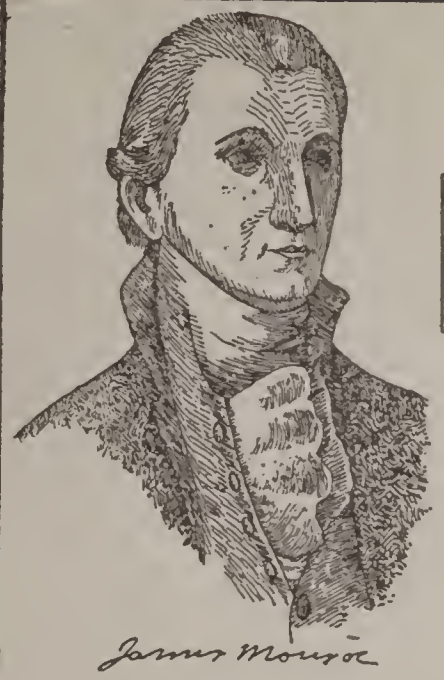
5. By the Treaty of Ryswick, 1697:
   a. France secured Nova Scotia and the coast from Maine to Labrador, Hudson Bay, Canada, and the Mississippi Valley.
   b. England secured the territory south from the St. Croix River.

II. Queen Anne's War (War of the Spanish Succession), 1702-13.
1. Causes.
   a. Rivalry between France and England.
   b. Louis XIV's attempt to rule Europe.
2. Campaigns.
   a. French and Indian attacks upon the frontier (Saco and Casco); massacre at Deerfield, Mass., 1703.
   b. Petit Havre and St. John's, N. F., destroyed by French and Indians, 1705.
   c. English captured Port Royal and changed the name to Annapolis, 1710.
3. By the Treaty of Utrecht, 1713:
   a. England received Hudson Bay territory, Newfoundland, and Nova Scotia, and retained Port Royal (Annapolis).

III. King George's War (War of Austrian Succession), 1744-48.
1. Causes.
   a. Extension of European war to the New World.
   b. Desire of French to destroy English fisheries.
2. Campaigns.
   a. Burning of settlement on island of Canso by the French, 1744; captives carried to Louisburg.
   b. Capture of Louisburg by the English, 1745.
3. By the Treaty of Aix la Chapelle: The captured territory was restored to the French (Oct., 1748).

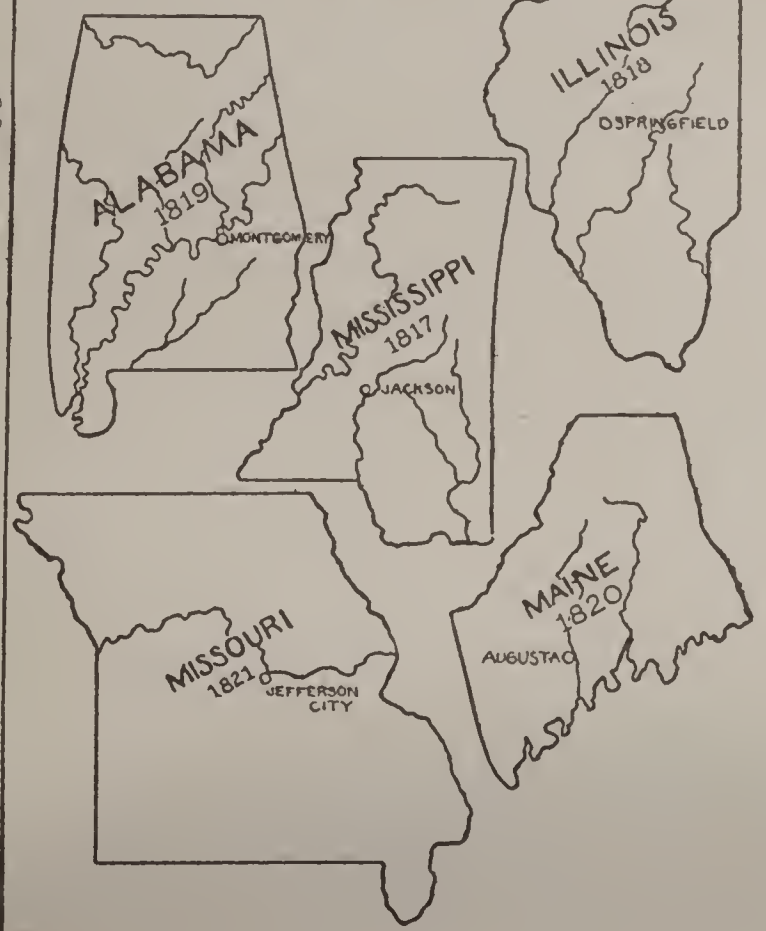
IV. French and Indian War (Seven Years' War), 1755-63.
1. Causes.
   a. Boundary disputes arising from Treaty of Utrecht concerning Acadia.
   b. Struggle for control of the Ohio Valley and the new continent.
2. Commanders.
   a. French: Dieskau, Montcalm.
   b. English: Washington, Braddock, Shirley, Loudoun, Abercrombie, Bradstreet, Amherst, Johnson, Wolfe.
3. Events.
   a. Failure of Washington's mission to Fort Le Boeuf.
   b. Washington's defeat at Fort Necessity, July, 1754.
   c. Braddock's defeat in expedition against Fort Duquesne, July, 1755.
   d. Dieskau's defeat in Battle of Lake George, Sept., 1755.
   e. Removal into exile of French Acadians.
   f. Capture of Oswego and Fort William Henry by French under Montcalm, 1756-57, giving them possession of Lakes Champlain and George.
   g. Capture of Louisburg by English under Amherst, July, 1758.
   h. Storming of Ticonderoga by Abercrombie and his failure, July, 1758.
   i. Capture of Fort Frontenac by Bradstreet, Aug., 1758.
   j. Capture of Fort Duquesne (Pittsburgh), Nov., 1758.
   k. Capture of Quebec by Wolfe, Sept., 1759.
   l. Surrender of Niagara, Ticonderoga, and Crown Point.
   m. Surrender of Montreal, Sept., 1760.
4. By the Treaty of Paris, 1763:
   a. Nova Scotia, Canada, Cape Breton Island, and the country east of the Mississippi River (excepting New Orleans) were ceded to England by France.

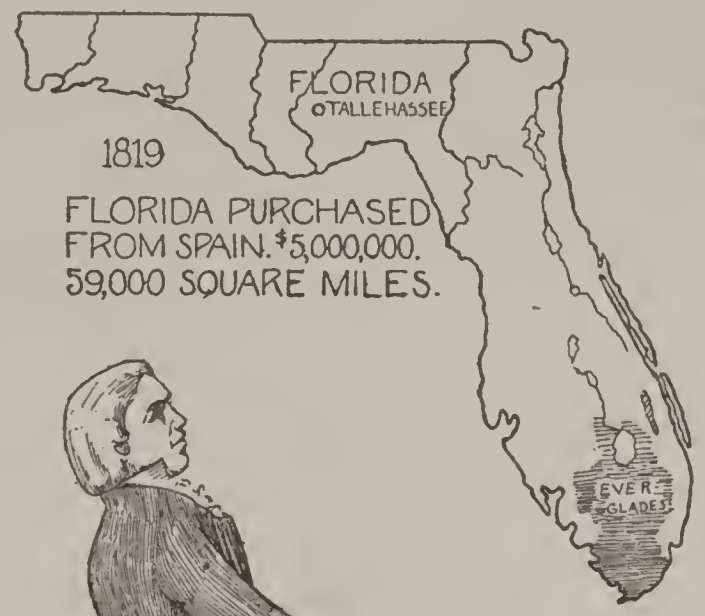
1817 ADMINISTRATION 1825
OF
JAMES MONROE
ERA OF GOOD FEELING

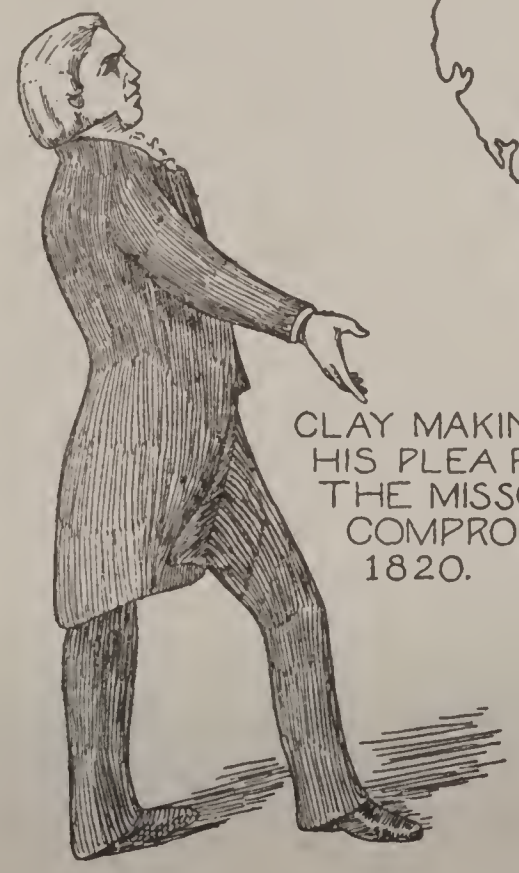


D.D. TOMPKINS
VICE PRES.

FIVE STATES ADMITTED







CLAY MAKING HIS PLEA FOR THE MISSOURI COMPROMISE, 1820.

THE SAVANNAH. First steamboat to cross Atlantic. 1819.

THE MONROE DOCTRINE
1823

THAT NEITHER SOUTH NOR NORTH AMERICA SHOULD HEREAFTER BE OPEN TO EUROPEAN COLONIZATION, AND THAT AN ATTEMPT TO VIOLATE THIS PROPOSITION WOULD BE CONSIDERED AN ACT OF HOSTILITY TO THE UNITED STATES.

FIRST SEMINOLE WAR	1817
LAFAYETTE'S VISIT	1824
MONROE'S JOURNEY NORTH	1817
OCCUPATION OF OREGON	1818
CANADIAN BOUNDARY	1818
FOURTH CENSUS 9,633,822	1820
PENSION LAWS	1823
PROTECTIVE TARIFF	1824

H.M.H.

b. Florida was ceded to England by Spain.
c. In exchange England restored Havana and Manila to Spain.
d. France ceded to England all her territory west of the Mississippi River.
e. Some West Indian islands were returned to France.

Small Inter-Colonial Wars

1. War between the Dutch and the Swedes, 1648.
2. War between the English and the Dutch, 1664.
3. War between the English and the Spanish, 1739-43.

War of 1812. Second War for Independence (1812-1814)

I. Causes.
1. British orders in Council.
2. Impressment of American seamen.
3. Attack upon the *Chesapeake* by the *Leopard,* 1807 (claiming the right of search).
4. British intrigues with the Indians.
5. Berlin and Milan decrees.
6. Blockade of American ports.
7. Destruction of American commerce.
8. War hawks in Congress (Clay, Calhoun, Lowndes, etc.).

II. Events.
1. Formal declaration of war, June 18, 1812.
2. Hull's invasion of Canada and surrender at Detroit, August, 1812.
3. Battle of Queenstown Heights.
4. American naval victories: the *Alert* captured by the *Essex;* the *Guerriere* captured by the *Constitution;* the *Frolic* defeated by the *Wasp;* the *Macedonia* defeated and captured by the *United States;* the *Java* defeated by the *Constitution;* the *Peacock* sunk by the *Hornet.*
5. The *Chesapeake* destroyed by the *Shannon;* death of "Don't give up the ship" Lawrence.
6. Harrison's northwestern campaign.
7. Perry's victory on Lake Erie.
8. Burning of Toronto and capture of Fort George.
9. Failure of expedition against Montreal.
10. British blockade of Atlantic coast, 1813-14.
11. Battles of Lundy's Lane and Fort Erie.
12. Burning of Washington, 1814.
13. McDonough's naval victory at New Orleans, Jan., 1815.
14. Jackson's defeat of Packenham at New Orleans, Jan. 8, 1815.

III. By the Treaty of Ghent, 1814:
1. Restoration of captured property by both parties was agreed to.
2. The fixing of the boundary line between the United States and British possessions was to be left to a commission.

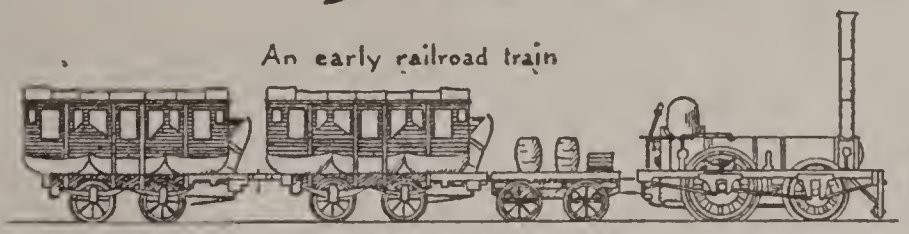
IV. Results.
1. Respect for the ability of the United States government to defend its interests.
2. Confidence of the people of the United States in their fighting qualities.
3. A feeling that the Union was strong and worthy of trust.

War With Mexico (1845-1848)

I. Causes.
1. Annexation of Texas by the United States, 1845.
2. Disputes concerning the western boundary of Texas.
3. Mexico's failure to pay all the arbitration claims of 1839.

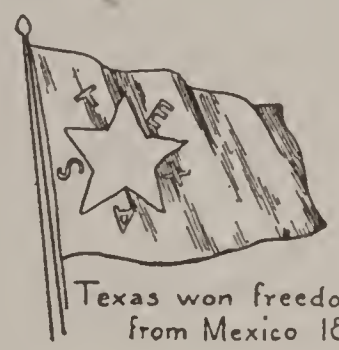
II. Events.
1. Encounters between American forces and Mexicans at Palo Alto (May 8) and Resaca de la Palma (May 9).
2. Formal declaration of war by Congress, May 13, 1846.

1829 JACKSON'S ADMINISTRATION 1837



An early railroad train

Peter Cooper's locomotive on the Baltimore and Ohio 1829
First steam passenger railway begun between Charleston and Savannah 1830
Freight line completed - Philadelphia to Pittsburgh - built by the state - Partly by canal-by horse railroad - hoisting over the Alleghany mountains by stationary engines 1831

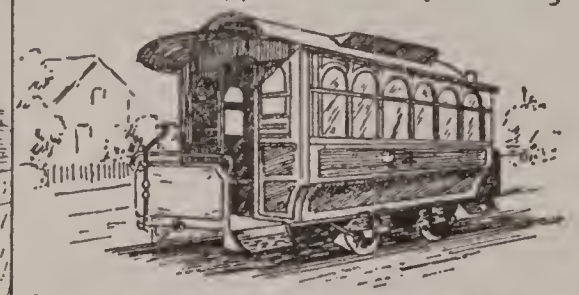


Texas won freedom from Mexico 1836

Andrew Jackson met by a Mississippi reception committee at Natchez January, 8th, 1828

Fort Dearborn

Chicago founded at Fort Dearborn 1830
Mormon church established by Joseph Smith 1830
First astronomical telescope in America-at Yale 1830
Gas used for lighting streets of Philadelphia 1836
Galvanized iron - Dr. John Revere 1829
Electric apparatus for producing sound at a distance 1831



First American street car line built in New York from the city hall to fourteenth street

The first use of friction matches

Bread riots of New York City

Canal travel

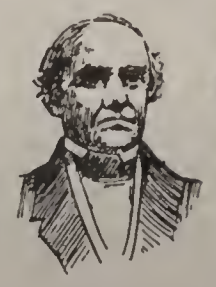
Introduction of "spoils system"
Webster Hayne Debate
Tariff bill modifying that of 1828 1832
Nullification Act of South Carolina 1832
Force bill 1832
Compromise Tariff 1833
Jackson vetoes 2nd Nat. Bank bill 1833
Removal of Deposits 1833
National Debt paid off 1835
Jackson issued "Specie Circular 1836

Turner's Insurrection 1831
Garrison mobbed in Boston 1835
Gag resolution 1836

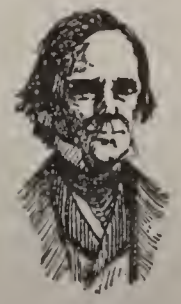
Great Britain opened West Indian and South American ports to U.S. 1830
Turkey opened Black Sea to U.S. ships 1830

Publication of the Liberator

McCormick Harvester 1831



Webster



Clay

Black Hawk War 1833
Seminole War 1835

3. Invasion of New Mexico by General Kearney, and of California by Commodore Stockton and Captain Fremont.
4. Victories by Taylor at Monterey, Sept. 24, 1846, and Buena Vista, Feb. 23, 1847.
5. Vera Cruz taken by Gen. Winfield Scott, March 27, 1847.
6. Capture of the city of Mexico by General Scott, Sept. 15, 1847. (U. S. Grant and R. E. Lee were officers under Scott.)

III. By the Treaty of Guadalupe Hidalgo, Feb. 2, 1848:
1. $15,000,000 was to be paid to Mexico by the United States.
2. The boundary line between the United States and Mexico was fixed.
3. "California" and "New Mexico" were ceded to the United States.
4. The United States assumed the spoliation claims of the citizens of Mexico.

Note.—Out of this territory were afterwards constructed the states of California, Nevada and Utah, and parts of Arizona, Colorado, New Mexico and Wyoming.

Spanish-American War, 1898

I. Causes.
1. Indirect—Spanish government in Cuba.
2. Immediate — Destruction of the *Maine,* Feb. 15, 1898.

II. Preliminary Measures.
1. Voting of $50,000,000 by Congress "for national defense."
2. Recognition of Cuban independence by Congress, April 19.
3. Ultimatum to Spain, April 20.
4. Formal declaration of war, April 25.

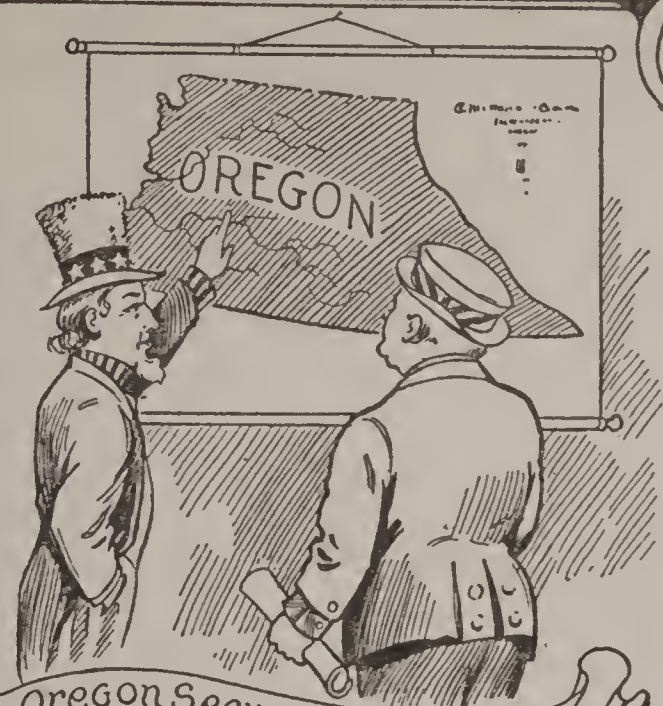
III. Events of the War.
1. Battle of Manila Bay, P. I., with destruction of Spanish fleet by Admiral Dewey, May 1, 1898.
2. Santiago campaign.
   a. Battles of Las Guasimas, Caney, and San Juan Hill, Cuba.
   b. Destruction of Cervera's fleet by Admiral Sampson and Commodore Schley, July 3.
   c. Surrender of Santiago de Cuba to Gen. Shafter, July 14-17.
3. Porto Rican campaign and the welcome of Porto Ricans to American troops.
4. Surrender of Manila, Aug. 13.

IV. By the Treaty of Paris, 1898:
1. Cuba was to be free and independent.
2. Porto Rico was ceded to the United States.
3. The Philippine Archipelago and the Island of Guam, both in the Pacific, came into the possession of the United States.
4. Spain lost the last of her American Colonial possessions.
5. The United States agreed to pay Spain the sum of $20,000,000.

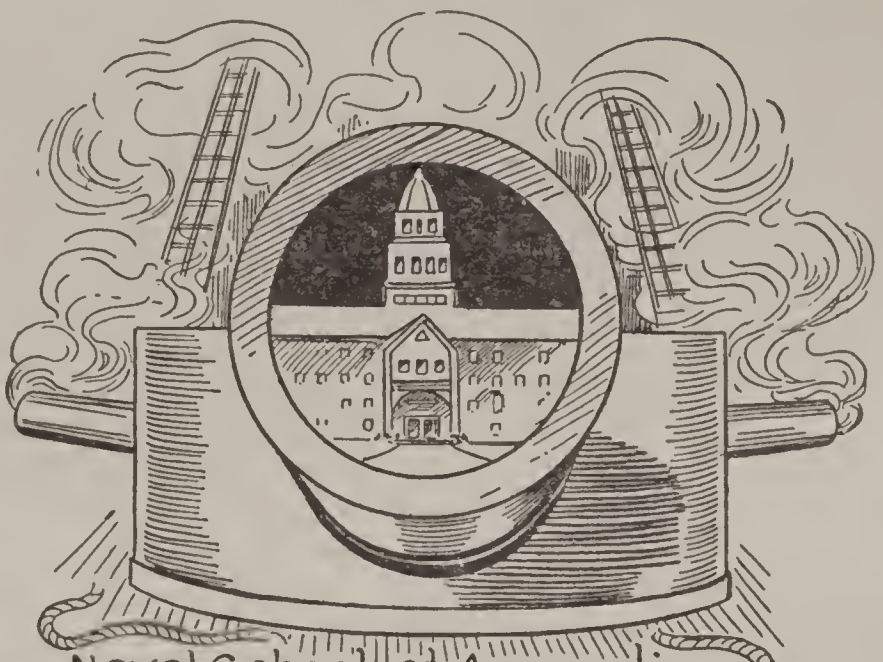
V. Results.
1. The North and the South united against a common foe.
2. New problems in administration face the United States.

JAMES K. POLK

1845-1849



Oregon Secured By Treaty With Gt. Britain



Naval School at Annapolis
Founded 1845

Gold Discovered in California 1848

First use of Ether in a Surgical Operation
1846

Mexican War
Territory Gained by
Treaty of Guadalupe Hidalgo

Sewing Machine Invented
1848

SLAVES, HORSES, & OTHER CATTLE IN LOTS TO SUIT PURCHASERS
LOVE TO BREAK THE BONDS OF THE OPPRESSED
THOU SHALT LOVE THY NEIGHBOR AS THYSELF
THE LIBERATOR.

SLAVERY

Slavery had its origin in war. The captive was frequently regarded and treated as the property of the captor. The owner was often allowed the power of life and death over his slave. In many countries the slave was used as a domestic; in some lands he was taught business or he served in the useful trades; and in some cases great liberties were allowed slaves under certain restrictions.

But slavery in America, as in certain countries in Asia and Africa, had an entirely different origin and purpose. In the new world the institution owed its origin to greed and avarice and was often attended with great cruelty. The design here is not to discuss the subject, but to present in outline a brief history of the origin, development, and final extinction of negro slavery in the United States.

I. Its Introduction.

1. The Spaniards, under suggestion of Las Casas, bring slaves for their mines and plantations in the New World.
2. The English find the trade in slaves profitable. (Sir John Hawkins.)
3. Various nations engage in the trade—especially with the new American colonies.
4. First negro slaves brought to the new world by the Portuguese in 1503. Sold in San Domingo.
5. First negro slaves in the colonies bought in Virginia from a Dutch man-of-war in 1619.
6. New England and New York vessels largely engaged in the trade in the 17th century, with headquarters in Rhode Island.
7. Recognized by Virginia in 1640.
8. A monopoly of the slave trade secured by England (Treaty of Utrecht, 1713).
9. Slavery general in the colonies, both North and South, about the time of this treaty. (Invention of cotton gin makes slavery very profitable.)

II. Ideas and Incidents Favoring the Expansion of Slavery.

1. General ideas:
   a. The idea that Christianity justified enslaving infidels or pagans.
   b. The notion that a slave is legal property strengthened by legislation in the colonies making it lawful to transfer slaves.
   c. The desire for the profit coming from capturing negroes in Africa and selling them as slaves.
   d. The evident value of slaves in cultivating crops, as cooks, as general house servants, etc.
   e. The recognition of the institution of slavery by the United States Constitution. (Art. I, Secs. 2 and 9; Art. IV, Sec. 2.)
2. Incidents favoring expansion.
   a. The invention of the cotton gin by Eli Whitney in 1794. (Cotton production, 1800, was 210,000 bales; in 1830 it was 1,038,847 bales.)

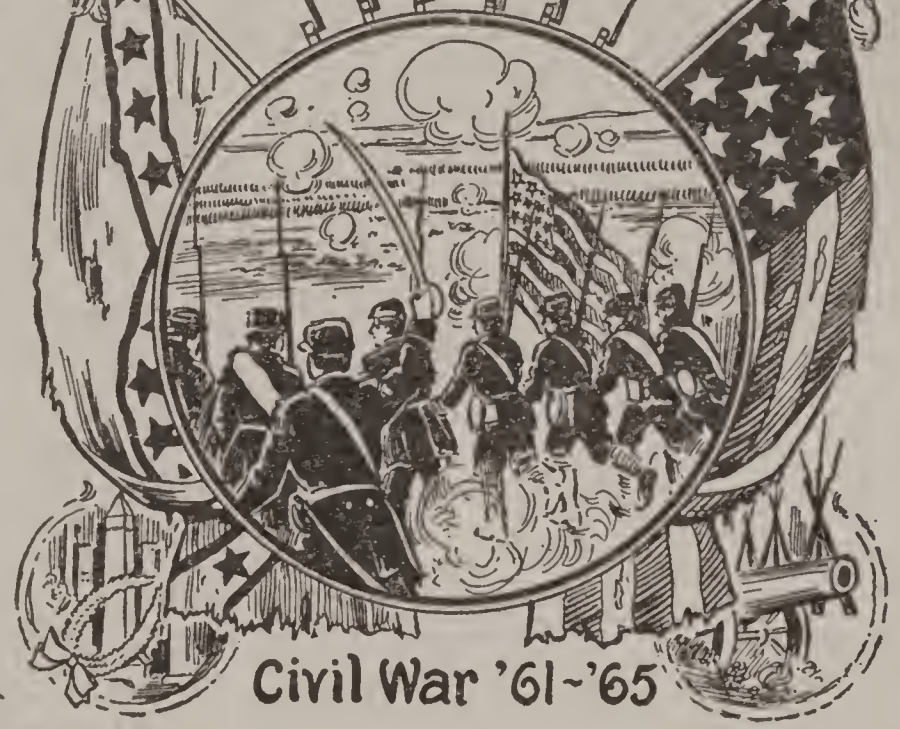
"That Government of the People, for the People and by the People Shall not perish from the Earth"

ABRAHAM LINCOLN

1861 1865

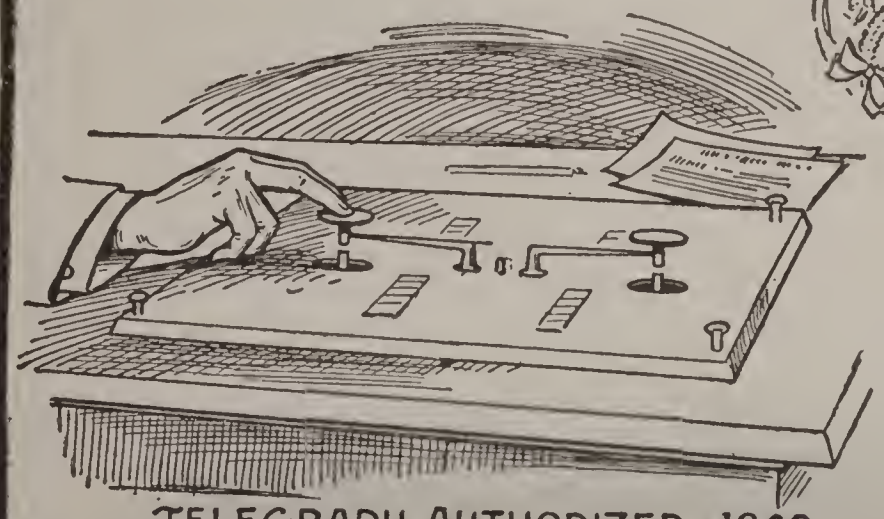
"With Malice toward none, with Charity for All, with Firmness in the right as God gives us to see the right"

HOMESTEAD LAW 1861



Civil War '61-'65

FREE CITY DELIVERY OF MAIL 1863

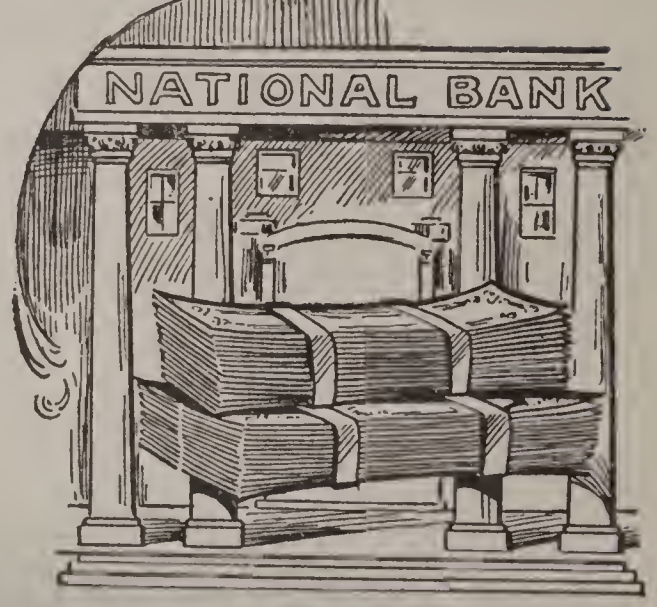


TELEGRAPH AUTHORIZED 1862

POSTAL MONEY ORDER SYSTEM
1864

BUREAU OF AGRICULTURE
FOUNDED 1862

EMANCIPATION PROCLAMATION
1863



NATIONAL BANKS FOUNDED 1863
FIRST ISSUE OF GREENBACKS 1862

Ketchum

b. The Fugitive Slave Laws of 1793 and 1850, providing for the return of fugitive slaves to their masters.
c. The increasing size of rice and sugar plantations, the cultivation of which was made possible by the use of slave labor.
d. The feature of the Missouri Compromise of 1820 recognizing slavery as lawful south of 36° 30′.
e. The admission of Texas as a slave state in 1845.
f. The clause in the Kansas-Nebraska Bill of Stephen A. Douglas which made slavery legal in Kansas if favored by a majority of the new settlers (1854).
g. The Dred Scott decision of the United States Supreme Court in 1857, to the effect that an owner could take his slaves into any part of the United States and hold them.
h. The speeches of Stephen A. Douglas in his famous debates with Abraham Lincoln, 1858.
i. The evident popularity of the institution in the South shown by the growth in the number of slaves from 300,000 in 1776 to nearly 4,000,000 when President Lincoln issued the Emancipation Proclamation.

III. Efforts to Restrict the Slave Trade.
1. Massachusetts in "Body of Liberties," 1641, restricts slavery to war captives or willing slaves.
2. Rhode Island, 1652, restricts slavery to ten years.
(Neither of these acts was strictly enforced.)
3. German Quakers in Pennsylvania oppose slavery, 1688.
4 First Continental Congress (1774) prohibits the importation of slaves. (Purpose—to damage English trade.)
5. Abolition Society formed in Pennsylvania, Benjamin Franklin, president, in 1775.
6. Virginia takes steps to stop the slave trade, 1778.
7. Pennsylvania provides for freeing its slaves and to prevent the growth of the slave trade, 1780.
8. Rhode Island and Connecticut provide for gradual emancipation in 1784.
9. New York and New Jersey take similar steps in 1789.
10. These acts were connected with the sentiment that led Congress to prohibit slavery and the slave trade in the Northwest Territory, 1787 (Ordinance of 1787-89). (See also enlistment of slaves in the Continental Army.)
11. In the adoption of the United States Constitution, 1787, Congress is permitted to prohibit migration and importation after 1808.
12. England attempts both to restrict and to put an end to the slave trade, 1806.
13. Fear of insurrection from having too many slaves exerts its influence. (See New York Slave Plot, Nat Turner [Va.] insurrection, etc.)
14. Congress, March 7, 1807, passes an act forbidding the slave trade.
15. Agitation against slavery and the slave trade assumes various forms until it was put an end to by the Civil War.
a. The Missouri Compromise of 1820.
b. Petitions to Congress, beginning 1830.
c. Speeches in Congress.
d. The Wilmot Proviso, 1846.
e. The Compromise of 1850.
f. Civil War in Kansas, 1854.
g. Lectures and speeches by Wendell Phillips, William Lloyd Garrison, and others.
h. Poems and books by John G. Whittier, James Russell Lowell, Mrs. H. B. Stowe, etc.

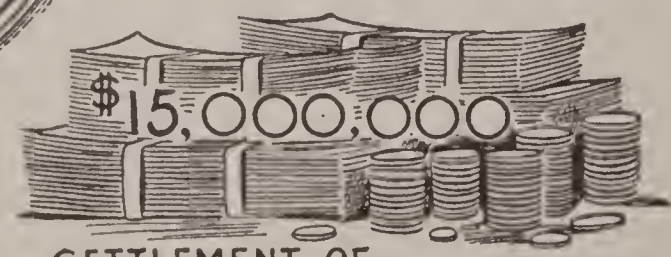
ULYSSES S. GRANT

1869 ~ 1877

COLORADO
ADMITTED
1876

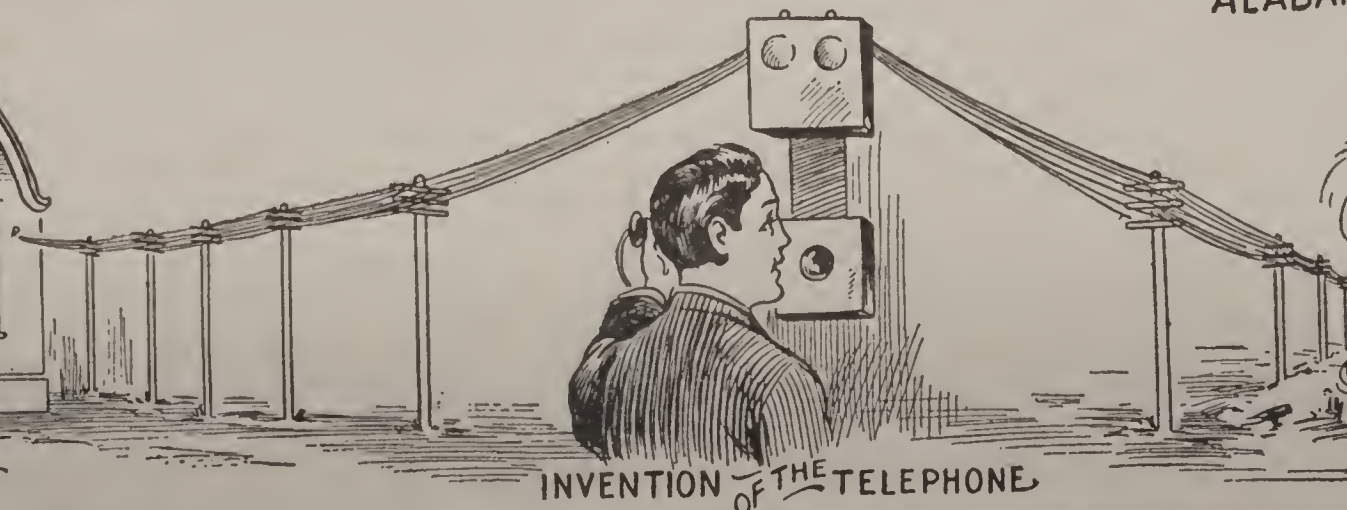
PACIFIC R. R. COMPLETED

CENTENNIAL AT
PHILADELPHIA

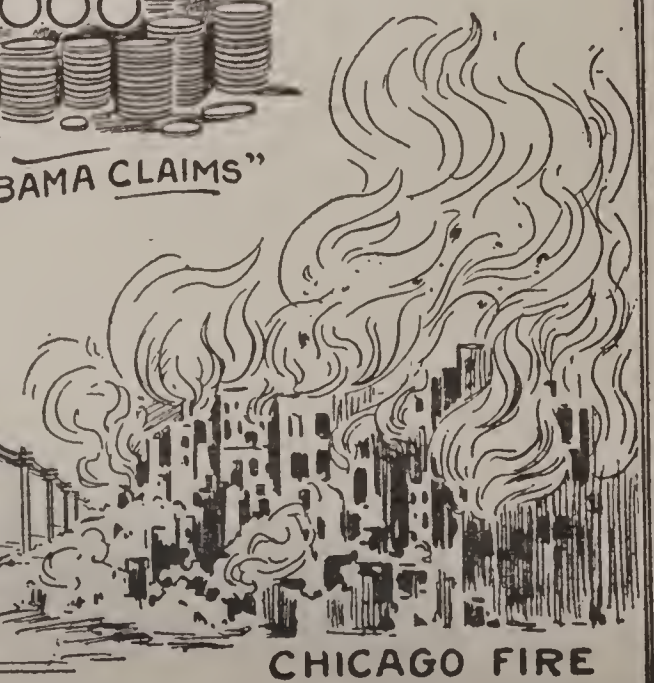


SETTLEMENT OF
"ALABAMA CLAIMS"

WEATHER BUREAU



INVENTION OF THE TELEPHONE



CHICAGO FIRE

i. Contributions to papers and editorials in papers favoring the abolition of the entire institution of slavery (*Liberator, Observer,* etc.).
j. Societies to promote agitation against slavery and to aid fugitive slaves. ("Underground Railway.")
k. The formation of the Republican party.
l. Raids by John Brown, etc.

IV. Acts Abolishing the Institution of Slavery.

1. Connecticut and Delaware prohibit slavery, 1770-76.
2. Constitution adopted by Vermont in 1777 forbids slavery.
3. Constitution adopted by Massachusetts, 1780, forbids slavery.
4. Pennsylvania in 1780 passes an act setting all slaves free at 28 years of age.
5. The Ordinance of 1787 (reënacted by Congress in 1789) forbids slavery in the Northwest Territory.
6. The Missouri Compromise abolished slavery in the territory north of 36° 30′ (except Missouri).
7. The Compromise of 1850 abolished slavery in California and the slave trade in the District of Columbia.
8. Slavery is abolished in Kansas by a majority vote of the new settlers in 1854.
9. Slavery abolished in the states in rebellion by the Emancipation Proclamation of President Abraham Lincoln, Jan. 1, 1863.
10. Slavery in any state or territory forbidden by Amendment XIII to the United States Constitution, adopted Dec. 18, 1865.

FINANCIAL HISTORY

The financial history of the United States is not complicated nor difficult to understand. This is due to the fact that the government has been and is an honest government. It has had no other intention than to meet its obligations squarely. There have been differences of opinion as to the best methods of raising revenue; a difference of views as to the amount of protection needed by our home industries; a difference of judgment as to the best way to promote the country's financial welfare—and occasionally political advantage has been considered in devising ways and means—but always and by all parties there has been manifested an honest intent to meet every obligation when it became due. This has led to trust at home and to confidence abroad, so that the credit of the United States is good and its bonds are in demand.

The financial development of the country may be divided into the period before the adoption of the Constitution, the period from 1787 to 1816, from 1816 to the Civil War, and from the Civil War to the present time.

I. The Colonial Period.

1. The Continental Congress began on June 22, 1775, to issue Continental paper money.
2. This money gradually depreciated in value because there was no stable government back of it and the people lacked confidence in its redemption.
3. In May, 1781, Robert Morris, of Pennsylvania, submitted a plan for the National Bank of North America, capital $400,000; par value of stock, $400 per share.
4. After long discussion the Bank was incorporated in December, 1781, and exists today as the National Bank of North America.
5. Local banks, in various colonies, without regulation or supervision, did a local business.
6. Bank of Massachusetts chartered by that colony in 1784.

7. Bank of New York starts without charter in 1784, but is chartered in 1791. These were all banks of issue and deposit.

II. First Period Under the Constitution.

1. First Bank of the United States established on Feb. 8, 1791. Features: Capitalization $10,000,000; par value of shares, $400; period, 20 years; bills or notes were payable in coin and were legal tender for debts due the United States.
2. No other bank could be legally established by the United States until 1811, at which time renewal of this bank's charter was lost by the tie vote of Vice-President Clinton.
3. First law to regulate banks passed in 1805. Banks liable for their notes but not for their deposits. Nearly 200 banks failed during this period.

III. Period from 1812 to Civil War.

1. First Tariff Act passed by Congress on July 4, 1789. Over forty since. (See description of Tariff Legislation.)
2. This and nine additional tariff laws passed by Congress, including the Tariff of 1812, had produced insufficient revenue to meet the obligations of the government and the expenses of the "Second War of Independence."
3. Agitation, begun in 1814, led to the establishment of the second Bank of the United States in April, 1816. Features: Capital, $35,000,000; par value of shares, $100; United States to take $7,000,000 of the stock; charter to run 20 years.
4. The Safety Fund System started in New York in 1829.
5. A bitter political contest resulted in the refusal to recharter the second Bank of the United States by President Jackson in 1836. It also resulted in the establishing of the State Bank System through the influence of Presidents Jackson and Van Buren.
6. The Suffolk Bank System of redemption and collection established by the New England banks.
7. An independent Treasury System Act passed in 1840, but repealed by the Whigs in 1841.
8. Over 1400 Banks of Issue and Deposit chartered by the several states up to the period of the Civil War.

IV. Since the Civil War.

1. Government driven by enormous expenses of the Civil War to devise some plan for turning its bonds into ready cash.
2. National Banking System, devised in 1863 under an officer known as the Comptroller of the Currency.
3. These banks required to deposit $100 in government bonds for each $90 in currency issued by the United States for their use.
4. The money thus issued is good for any debt except duties on imports, interest on the public debt, and redemption of national currency.
5. By an act passed on March 3, 1865, Congress forced the circulating notes of state banks out of existence by taxing them 10 per cent per annum.
6. Temporary loan certificates were authorized in 1867, 1868, etc., the tariff failing to produce the revenue needed.
7. The financial panic of 1873 proved quite disastrous and led to acts by Congress to remove certain restrictions on National Banks, to resume specie payments, to control the coinage of silver, etc.
8. State banks, trust companies, and private banks are in operation under special charters of general laws.

9. The Sherman Silver Purchase Act of 1890, a compromise to prevent a free coinage law; the repeal of the silver purchase clause of that Act in 1893; the campaigns of 1896 and 1900, definitely establishing the gold standard; a financial panic in 1907 led to the passage by Congress of the Emergency-Currency Law in May, 1908.

Reform of the Monetary System

The modern bank is a development of slow growth at first, but it is now rapidly becoming a great factor in the industrial welfare of the country. The thought of our wisest financiers is now being given to a plan to make it a sound and safe institution.

In a message to Congress on Dec. 21st, 1911, President Taft dealt with the finances of the United States and recommended:

1. That a Central Bank be not established as it would be "opposed to the wise and undisputed policy of maintaining unchanged the main features of our banking system."

2. Instead, he recommended a National Reserve Association under certain safeguards and with efficient supervision and control.

3. Owing to the imperfections of the banking and currency systems of the United States, he recommended also a monetary reform free from political bias and with the view of preventing "the consolidation of the money or banking power of the nation."

The National Monetary Commission, appointed under an act approved May 30, 1908, made its report to Congress on Monday, Jan. 8, 1912, after having studied the financial systems of all the leading countries of the world for the purpose of determining what changes in the financial or monetary system of the United States are desirable. The report, in brief, proposed the creation of a National Reserve Association, a coöperative union of all the banks in the United States.

The Federal Reserve Act

This banking and currency act was passed at the second session of the Sixty-third Congress and approved by the President December 23, 1913. A brief synopsis of its provisions follows.

The Secretary of the Treasury, the Comptroller of the Currency and the Secretary of Agriculture acting as an organization committee shall designate not less than eight nor more than twelve cities as centers of federal reserve banks for their respective districts. Each national bank is required and all other eligible banks and trust companies are permitted to become stock holders of the federal reserve bank in its district by subscribing for stock equal to six per cent of its own capital stock and surplus. Each federal reserve bank shall require a subscribed capital of not less than four million dollars. Each federal reserve bank shall be under the supervision and control of a Board of Directors chosen by the stockholding banks. After a six per cent dividend is paid on the capital stock from the net earnings of the bank one half of the balance shall be paid into a surplus fund not to exceed forty per cent of the paid in capital, the balance going to the United States as a franchise tax. The capital, surplus and income are exempt from taxation.

The general governing body shall consist of a Federal Reserve Board including the Secretary of the Treasury and the Comptroller of the Currency and five members appointed by the President of the United States with the consent of the Senate, and whose salaries shall be twelve thousand dollars per annum. New federal reserve notes are authorized which shall be obligations of the United States and redeemable in gold. Each federal reserve bank must maintain reserves in gold or lawful money of not less than forty per cent of its reserve notes in circulation.

1901 ROOSEVELT'S ADMINISTRATION 1909

WIRELESS TELEGRAPHY ESTABLISHED IN AMERICA

LAW PASSED FOR IRRIGATION OF WESTERN LANDS

THE ELKINS' ANTI-REBATE LAW PASSED

FINANCIAL PANIC, 1907

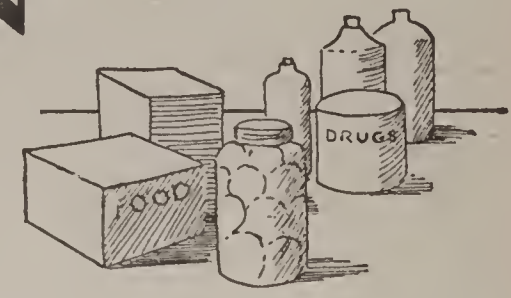
LOUISIANA PURCHASE EXPOSITION AT ST. LOUIS, 1904

RECIPROCITY TREATY WITH CUBA

RUSSIA - JAPAN TREATY AT PORTSMOUTH

HAY-PAUNCEFOTE TREATY

PURE FOOD AND DRUGS ACT JUNE 30, 1906

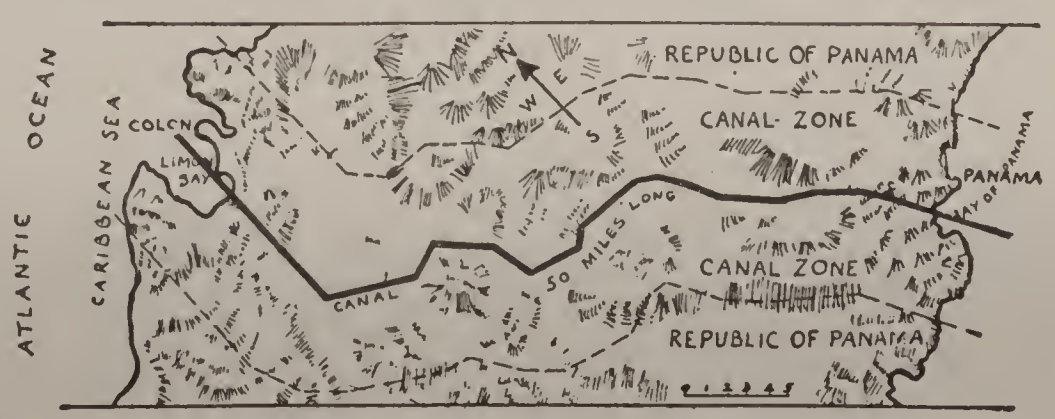


INVESTIGATION OF THE LIFE INSURANCE SCANDALS

DEPARTMENT OF COMMERCE AND LABOR CREATED

EX-PRESIDENT CLEVELAND'S DEATH

PANAMA CANAL ROUTE SELECTED AND CANAL BEGUN



GIGANTIC COAL STRIKE

These banks are bankers' banks and do not deal with individuals or corporations as such. For them they discount notes, drafts and bills of exchange, buy and sell notes, bonds and warrants of the United States or its subdivisions, establish accounts with other reserve banks, serve as a clearing-house for the member banks, and perform various other banking functions. It is expected that this new system will give flexibility to our banking and reduce to a minimum the danger of financial panics.

On April 2, 1914, the organization committee officially announced the twelve reserve cities designated numerically in the order named: Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco. The new banks at the places named opened for business November 16, 1914.

See MONEY; BANKS AND BANKING; CURRENCY; BUSINESS ECONOMICS.

THE TARIFF

I. The suggestion of the Tariff policy of the United States found in the Pennsylvania Act of 1783; its origin due to the necessity for revenue facing the Congress of 1789.

II. Tariff policy adopted on recommendation of Hamilton, 1789.
1. Bill introduced by Madison into the Congress of 1789.
2. Object—revenue.
3. Incident—protection of home industries.

III. "American System" adopted 1816.
1. Object—protection.
2. Incident—revenue.

IV. "Bill of Abominations," 1828.
1. New England's change of policy; Webster's support of protection.
2. Duties on wool, iron, steel, flax, etc., enormously increased.

V. Tariff Act of 1832.
1. Protective system not materially changed.
2. Duties on unprotected articles reduced or abolished.

VI. Opposition of South Carolina.
1. Nullification of Ordinance, 1832.
2. Jackson's proclamation.
3. "Force Bill."

VII. Clay's Compromise Tariff Bill of 1833.
1. Duties to be gradually reduced till 1842.
2. Twenty per cent thereafter.

VIII. Whig Act of 1842.
1. Causes:
   a. Lack of revenue, and financial panic.
   b. Decrease of manufactures.
2. Duties increased.

IX. "Walker Tariff" of 1846.
1. Reduction of duties planned.
2. Discriminated between goods that could be produced at home and those that could not.

X. Canadian Reciprocity Treaty, 1854.
1. Negotiated with Great Britain.
2. Free list included grain, flour, breadstuffs, animals, meats, fruits, fish, hides, roes, etc.
3. Abrogated by United States in 1866.

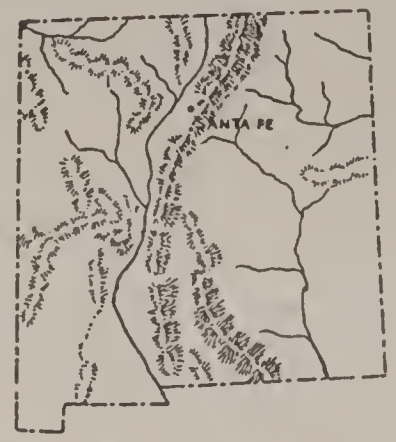
XI. Democratic Tariff of 1857.
1. Cause, increase of surplus in treasury.
2. Provisions:
   a. Lowering of rates.
   b. Increase of free list.

TAFT'S ADMINISTRATION

Postal Savings Banks Created

Admission of Arizona

Peary Discovered North Pole April 6th 1909

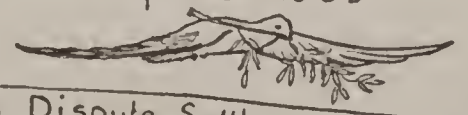


Admission of New Mexico

Thirteenth Census

President's Salary Increased

Attempted Reciprocity with Canada



Fisheries Dispute Settled by Hague Tribunal
Arbitration Treaty with France and England

Appointment of Monetary Commission

Mexican Revolution

Appointment of Tariff Commission

Parcels Post

On January 1st 1913 a parcels post system went into effect. The weight limit is eleven pounds. Rates vary with distance from five cents for the first pound local rate to twelve cents per pound flat for greatest distances

Events

Enforcement of Sherman Act - Dissolution of Trusts
American Sugar Refining Co. Frauds
Alaska-Yukon Exposition
Panama Canal Exposition located at San Francisco
Pure Food Agitation
Pinchot-Ballinger Controversy
Associate Justice Edw. D. White made Chief Justice
Rise of Progressive Element in Republican Party
Election 1910 - Democratic Victories U.S. House of Representatives Dem.
Champ Clark, Speaker
Progress in Aviation
President vetoes Wool Schedule, Farmer's List
Lorimer Matter

Deaths

Mark Twain
Mary Baker Eddy
Julia Ward Howe
Edward Everett Hale
William T. Harris
Melville W Fuller
John M Harlan
David J Brewer
Thos. W. Higginson
Winfield S. Schley

LLS

XII. Morrill Tariff, 1861.
1. Protection emphasized.
2. Duties materially increased.
3. Various changes from specific to ad valorem duties.
4. Iron and wool manufactures greatly benefited.

XIII. War Tariffs, 1861-64.
1. Purpose, revenue.
2. Duties imposed indiscriminately, the protection idea prevailing.
3. Average rate of duty 47.06 per cent.

XIV. Tariff Revision, 1883.
1. Appointment of Tariff Commission to investigate conditions.
2. Conflicting interests.
3. Increase of free list.
4. Slight reduction on some raw materials.

XV. Democratic attempts at tariff reform, 1884-88.
1. Morrison bill defeated.
2. Mills Bill defeated by the United States Senate.

XVI. McKinley Act of 1890.
1. Increased duties on wool and woolen goods.
2. Some additions to free list.
3. Reduced duties on sugar.

XVII. Wilson Act, 1894.
1. Substitution of ad valorem for specific duties on some articles.
2. Wool, lumber, and salt put on free list (a radical change) ; iron and steel duties reduced.
3. Income tax a feature, but declared unconstitutional by Supreme Court.

XVIII. Dingley Act, 1897.
1. Restoration of specific for ad valorem duties.
2. Increased rate on woolen, silks, and other fabrics; duty on hides reimposed.
3. Protection of certain interests by restoring duty on raw materials.

XIX. Payne-Aldrich Law, 1909.
1. Attempt toward revision downward, with questionable success. Schedule K (woolens) "indefensible."
2. Provided for appointment of Tariff Commission.

XX. Attempted Reduction, 1911, by Democratic and "Progressive" Republican coalition.
1. Bill reducing woolen rate vetoed by the President.
2. "Farmers' Free List" vetoed by the President.
3. Tariff Commission to report result of its labors and investigations as a basis for the President's recommendations to Congress.

THE UNITED STATES AS THE WORLD'S PEACEMAKER

Religious Peace—Civil Peace—International Arbitration

The march of civilization requires movement. A nation cannot stand still. If progressing, it comes into contact with some other people in motion. This produces friction and friction may lead to war. If not progressive, a nation gets in the way; and this causes antagonism or entangling relations. This is another source of war. Other causes are ambition, commerce, religion, desire for revenge, etc. In a few cases belligerency is due to policy; hence, arbitration is urged as a part of international law. Law is the only absolute and final means for the settlement of war—either civil or international.

The United States has a unique record in the matter of promoting permanent peace, and one in which it may take a pardonable pride. In the first place, those who gave the nation birth by the formation of the Constitution in 1787, guarded carefully the rights of every citizen anywhere within the nation's bounds by this provision: "Art. IV, Sec. 2. The citizens of each state shall be entitled to all the privileges and immunities of citizens in the several states."

WOODROW WILSON

1913 — 1921

PANAMA PACIFIC EXPOSITIONS: SAN FRANCISCO & SAN DIEGO
UNDERWOOD TARIFF — INCOME TAX LAW
AMENDMENTS TO CONSTITUTION: 17TH, 18TH & 19TH
KEOKUK DAM — CAPE COD CANAL
PANAMA CANAL TOLL EXEMPTIONS REPEALED
RURAL CREDITS LAW — ADAMSON LAW
PURCHASE OF THE VIRGIN ISLANDS

Sinking of the Lusitania
Submarine Warfare

PANAMA CANAL OPENED
FIRST BOAT THROUGH

FEDERAL RESERVE
BANKING MEASURE

VERA CRUZ TAKEN
CARRANZA RECOGNIZED
VILLA PUNITIVE EXPEDITION

ST. MIHIEL - ARGONNE
CHATEAU THIERRY - BELLEAU WOODS

WORLD WAR

LIBERTY & VICTORY LOANS
$ 22,000,000,000

OVER 2,000,000
MEN ACROSS

VERSAILLES CONFERENCE

"THE YANKS ARE COMING"

"OVER THERE"

Ketchum

I. Religious Peace.

The first amendment to the constitution, adopted by the first Congress that met with this instrument as the supreme law of the land, makes this unequivocal provision for religious peace by the separation of church and state and by guaranteeing freedom in religious belief:

1. "Congress shall make no law respecting an establishment of religion."
2. "Congress shall make no law prohibiting the free exercise of religion."

This amendment clearly shows that the founders of our government designed to secure religious peace, and to go as far as law could go to obtain that end by establishing toleration in religious belief.

II. Civil Peace.

Some steps taken by the people of the United States in promoting peace between their own citizens and among the nations of the world are:

1. Formation of the first Peace Society in history in New York in 1815.
2. Formation of the American Peace Society in 1828.
3. Arguments and pamphlets giving plans for universal peace.
4. Helping in the formation of the Hague Tribunal.
5. A gift from Andrew Carnegie of $1,500,000 to erect a Temple of Peace at The Hague.
6. The action of Secretary of State, John Hay, in securing "the open door" in China.
7. The action of President Roosevelt in bringing about peace between Russia and Japan.
8. The building of the Panama Canal on the idea of promoting the world's commerce and helping to industrial peace among nations.
9. Showing a spirit of friendliness toward weaker countries on this side of the ocean by protecting them while developing, by the maintenance of the Monroe Doctrine.
10. The meeting of the National Arbitration and Peace Congress in New York City in 1907. (The discussions were participated in by illustrious men from all parts of the world.)
11. The action of President Taft in uniting with England to try to secure a basis for international peace.

III. International Arbitration.

1. In the establishment of the "Permanent Court of Arbitration" for the settlement of international disputes the United States not only joined with twenty-three other powers in providing for the sittings of the Court and in ratifying its decisions, but it was active in promoting the success of the International Peace Conference which resulted in The Hague Tribunal.
2. As one of the signatory powers, it has appointed four men "famed for their competency in international law" as members of the permanent court.
3. It has taken this position (and shown its sincerity by the acceptance of certain decisions of the Tribunal in some of its own differences with other nations) on the grounds of universal peace and the promotion of the principles of true civilization. (San Juan boundary dispute arbitrated by the Emperor of Germany; Alabama claims settled by the Geneva Arbitration Commission; "Pious Fund" dispute with Mexico, and dispute with Venezuela as to claims of blockading powers—both settled by the Hague Tribunal Board.)

QUESTIONS ON UNITED STATES HISTORY

I. Steps to Liberty.

1. Is liberty dear to you? Why?
2. What is the difference between liberty and license?
3. Are you under obligation to protect the liberties of others? Explain.
4. What was the "Charter of Liberties"?
5. Why did the English people force King John to grant the Great Charter?
6. What were its provisions?
7. How does it concern you?
8. Did Simon de Montfort originate the idea of the two Houses of the English Parliament or did he simply bring the matter to a head?
9. What sort of a man was De Montfort—one filled with high ideals, or one filled with personal ambition only?
10. How was he regarded by the people?
11. What were the features of the 39th Article of Magna Charta that were reaffirmed in the Habeas Corpus Act of 1679?
12. Is *habeas corpus* in the laws of the United States? Of what value to you?
13. Did the American colonists rely upon anything in the "Petition of Rights" or the "Bill of Rights" in resisting the "Stamp Act" and "Declaratory Act"?
14. What justification had they for appealing to the principle of these bills and charters?
15. Have you read the Declaration of Independence? By whom was it made? To whom was it addressed?
16. What did the signers say they were about to do? Was it a matter of great importance? How do you know?
17. What did the signers assert to be fundamental truths?
18. What right did they claim?
19. Upon what ground can a people claim the right to destroy or change their government? Does this apply also to their control over public utilities—such as railroads, telegraphs, telephones, boats, gas companies, etc., and also to the regulation of corporations?
20. What is a constitution?
21. What is a preamble to a constitution?
22. What does the preamble to the constitution of the United States say are the purposes of the constitution?
23. When was the United States Constitution adopted? Why? How?
24. How can it be amended?
25. What was the effect of the Emancipation Proclamation?
26. What was the effect of the Thirteenth Amendment?

II. Tariff.

1. What is a Tariff?
2. What is the distinction between a "tariff for protection" and a "tariff for revenue only"?
3. What suggested the tariff to the United States?
4. What first led Congress to pass a tariff law?
5. When was that law passed and what were its provisions?
6. Who recommended the first United States tariff? What position did he hold?
7. Who framed the Congressional bill? What were its features?
8. Why was the tariff law of 1816 called "the American System"?
9. In what way does a tariff protect manufacturers? Is it an equal protection to laborers?

10. How many articles listed in the tariff bill of 1789? How many in the Dingley Act of 1897?
11. Why was the tariff law of 1828 called a "Tariff of Abominations"? What position was taken by Daniel Webster? By Henry Clay?
12. What was the cause of the antagonism of Clay and Calhoun in 1832? Who was then president? What did South Carolina attempt at that time? Why?
13. What causes led to the tariff acts of 1842 and 1846? How far were they similar?
14. What was the object of the Canadian Reciprocity Treaty of 1854? Of Canadian Reciprocity in 1911?
15. Has reciprocity with other peoples been in effect? Has it worked good or harm to the United States?
16. Compare the two tariff acts of 1857 and 1861 and their effects on manufacturing in the United States.
17. What was the chief purpose of the war tariffs? What was an incidental purpose?
18. How was the Tariff Commission of 1883 appointed? The Commission of September, 1909? What were the powers and duties of each?
19. What are the essential points of difference between the Wilson Bill and the Dingley Bill?
20. What was "Schedule K" of the Payne-Aldrich bill? Why has it caused so much discussion?
21. What were the features of the "Tariff Bill of 1911" which President Taft objected to?

III. Slavery.

1. How did general slavery originate? What nations practiced it? How did they treat their slaves?
2. What caused negro slavery? Where were American negro slaves mostly obtained?
3. What can you tell about Sir John Hawkins?
4. What peoples were most active in buying and selling negro slaves? Why?
5. What were the principal occupations of slaves in the Northern Colonies of the new world? In the Southern Colonies?
6. What made slaves specially valuable in the Southern States?
7. Were slaves recognized as property in both sections of the country?
8. Name some laws bearing upon the question of slavery since the United States became a nation.
9. What measures led to bitter contests on this subject among the people?
10. What was the Massachusetts "Body of Liberties"? Was it aimed particularly at slavery?
11. Why were the Massachusetts and Rhode Island measures in the middle of the 17th century practically "dead letter laws"?
12. What motives actuated the first efforts to restrict the slave trade?
13. What were these steps?
14. What was the "Ordinance of 1787"? To what section of the country did it apply?
15. Why was the Ordinance of 1787 passed? Why was it reënacted in 1789?
16. What was the provision in the United States Constitution about the slave trade in 1808?
17. What was the Missouri Compromise?
18. Who was Wilmot? What did his "Proviso" contain? Did it ever become a law?
19. What was the Compromise of 1850? Who was its author?
20. What was the Kansas-Nebraska Bill?

IV. Miscellaneous.

1. What were some of the most important compromises of the constitution? What was the chief point at issue between the large and the small states?
2. What were the "Alien and Sedition Acts"? What action was taken in regard to them by Virginia and Kentucky?
3. Why did Napoleon wish to sell Louisiana? Was there any objection to its purchase on the part of the people of the United States?
4. What was meant by the "Right of Search"?
5. What was the effect of the Embargo Act prior to the War of 1812?
6. Could the War of 1812 have been honorably averted? Why was it delayed as long as it was?
7. What was the effect of the War of 1812 on the industries of the United States? Why was this war called the "Second War for Independence"?
8. What was the effect upon manufacturing and commercial interests of the invention of the steamboat?
9. What was the effect upon slavery of the invention of the cotton gin? How did the purchase of Louisiana affect the slavery question?
10. What was the "Monroe Doctrine" and how is it applied today?
11. What is meant by "Civil Service" and the "Spoils System"? To what extent was Jackson responsible for the "Spoils System"?
12. To what extent have compromises entered into the legislation of the United States?
13. What do we mean by "pet banks" and "wild-cat banks" as referred to in Jackson's administration?
14. What are the principal causes of the financial panic of 1837? Was President Van Buren responsible for this panic?
15. Why was the South disappointed by Texas refusing to divide her territory into a number of states?
16. Was the Mexican War justifiable and which section of the country favored it more strongly?
17. What were the results of the publication of "Uncle Tom's Cabin"? What is meant by the "Underground Railway"?
18. What was the immediate effect on the country of the election of Abraham Lincoln? Was Lincoln more concerned about abolishing slavery or preserving the Union?
19. Was it justifiable for England to recognize the belligerency of the Southern Confederacy? What was the effect of this recognition on the North and the South?
20. When was the Emancipation Proclamation issued?
21. Why was President Johnson impeached?
22. What is meant by "Ku-Klux-Klan," "Carpet-baggers" and "Scalawags"?
23. What were the conditions in the South during the period of reconstruction?
24. What were the "Alabama Claims" and how were they settled?
25. What is meant by the terms "Demonetization of Silver" and "Resumption of Specie Payment"?
26. When was the Red Cross Society organized? Who was the person most responsible for its organization?
27. What is meant by a "Pool," a "Trust," a "Labor Union," a "Blacklist," a "Strike" and a "Boycott"?
28. What is meant by the term "Civil Service Reform" and what progress has been made in this connection since the days of Jackson?
29. What is meant by the terms "Free Trade," "Protective Tariff," "Reciprocity" and "Tariff for Revenue Only"?

CIVICS

Owing to man's association with his fellows he must surrender, for the general good, some of those rights that he would possess if alone. This restricted liberty is usually termed *civil liberty* and may be considered from two points of view: the principles or motives which should govern a citizen; and how and to what extent rules or laws should restrain and guide the citizen in the discharge of his duties. In a broad sense, *Civics* covers both of these. The latter, however, is frequently termed *Civil Government.* It may readily be seen that a citizen may know all about the forms and administration of government, but if he is not guided by the right motives he may become a dangerous or injurious part of civil society.

Government is therefore instituted for the protection of society against those members who are disposed to impose upon or to take advantage of the weak, the timid, or the uninformed. Guided by *international law,* nations even are restricted by other nations in the exercise of their powers or in their desire for conquest or possession. Such action sometimes leads to a war between nations, but modern civilization (influenced by civics in its best sense) is endeavoring to substitute arbitration for war in such cases. (See HAGUE TRIBUNAL.)

RIGHTS OF CITIZENS. Government is instituted for the good of the governed. It is proper that certain rights, usually termed *natural rights,* should not be taken away from the individual. Otherwise his freedom will be improperly restrained and his happiness and ability to acquire property interfered with. It is often difficult to distinguish, however, between *natural rights* and *legal rights.* The circumstances must sometimes settle the question. The Declaration of Independence defines natural rights, in a general sense, as "life, liberty, and the pursuit of happiness." *Laws* are the restrictions of these natural rights by some competent authority, or government, recognized by the individual as having the power to enact and to enforce rules of conduct controlling his political and social life.

GOOD CITIZENS. So general is the feeling that good citizenship is necessary to good government that public-spirited men and women are freely contributing both their money and their time to organized efforts for the promotion or teaching of civics (such as the American League for Civic Improvement). Some newspapers and societies hold meetings where discussions or addresses enable the people to become better informed. There are also movements on foot, such as "Children of the Republic," to teach children self-restraint, love of country, and obligation to the community as a whole. In this way there is impressed upon the mind of both old and young the necessity for law or control and the duty of every citizen to help make his government perfect and to give support to the officers of that government. Thus is taught the ethics of civics.

KINDS OF GOVERNMENT. It is usual to classify governments, according to the way in which the supreme power is exercised, into *Monarchies* (absolute or limited), *Aristocracies,* and *Democracies* (pure or representative).

In a Monarchy the supreme power is vested in a sovereign termed the monarch. If the three functions of government—legislative, executive, and judicial—are vested in one person, it is termed an *absolute monarchy.* If the acts of the ruler,

however, are limited by a constitution, the government is termed a *limited monarchy.* Russia until recently was an absolute monarchy; England is a limited monarchy. Monarchies may be further distinguished as hereditary (in which the sovereign inherits his power), or elective (in which the ruler is chosen by the people).

In an Aristocracy, family, wealth, or power usually determines who shall exercise the functions of ruler. There are few pure aristocracies. Government by such a privileged class is now uncommon, but its tendency is seen to a greater or less extent in all forms of government.

In a Democracy all citizens are supposed to possess an equal share in the sovereignty. In a *pure democracy* this power is exercised directly by the people, usually through a public assembly. Since such meetings have been found impracticable in any other than a very small state, there has arisen the *representative democracy,* or *republic.* In this form of government the supreme power is vested in delegates selected by the citizens. At this time pure democracy exists only among certain savage tribes. The United States is regarded as the best type of representative democracy, since here all the people are presumed to have an equal voice in the selection of representatives.

Origin of the Republic of the United States. The principle of civil liberty seems to have been deeply implanted in the Angles and Saxons at the time of their conquest of England. Becoming restless under what they regarded as the encroachments of the monarch upon their rights and privileges, they forced King John in 1215 to sign that great instrument known as Magna Charta, or the Great Charter. This document contained sixty-three provisions protecting the subject in his personal freedom and in his property. Subsequent steps taken by the people in asserting and protecting their rights were the establishment of the House of Commons, the declaration of the rights of colonists, and securing the passage of the *Habeas Corpus* Act and of the Bill of Rights. The violation of these rights in dealing with the American colonists led to the establishment of the United States government. The colonists first organized under the instrument known as "The Articles of Confederation." This was found too weak to be the basis of a stable government—especially when it was desired to form a nation out of states having greatly diverse institutions and interests. Hence arose the call for the Constitutional Convention of 1787. This body, after four months of discussion and compromise, adopted the present Constitution of the United States. Ten amendments were adopted in 1791; the eleventh in 1798; the twelfth in 1804; the thirteenth in 1865; the fourteenth in 1868, and the fifteenth and last in 1870. The national constitution with its amendments is now the supreme law of our republic.

The Nation and the States. At the formation of the Constitution it was natural that the states should be jealous of the powers proposed to be conferred upon the new nation. That jealousy to some extent will probably always exist. Its expression is found in the doctrine of States Rights. Many think this feeling valuable to both the states and the nation. The state, like the individual, must surrender certain rights for the general good. Just how much it is proper or necessary to surrender is a question left to the people's representatives to decide. Two points are made clear in the Preamble to the Constitution: (1) That the people are always to be recognized as the source of power; (2) That it was intended to form a nation—not a mere confederacy of states. In their forms, the national and the state governments have many features in common. Each state government, however, has features peculiar to itself.

Adoption of the Constitution. The national constitution was adopted, as stated above, by a convention of delegates appointed by the states then existing, and ratified by them through conventions called by each state for the purpose. Amendments may be made as shown in the following chart:

PROPOSED BY	RATIFIED BY
Congress. When two-thirds of both houses deem it necessary; Or by A Convention called by Congress on application of the legislatures of two-thirds of the states.	The Legislatures of three-fourths of the several states; Or by Conventions in three-fourths of the several states;—as proposed by Congress.

Illustration—The proposed amendment to the Constitution granting Congress the right to levy an Income Tax was passed by a two-thirds vote of both houses of Congress in 1909 and has now (1911) been ratified by a three-fourths vote of the legislatures of thirty-one of the thirty-five states whose approval is necessary to make it a part of the supreme law of the land.

No amendment, however, can deprive a state of equal representation in the United States senate without its consent. Each state adopts its own constitution, but it must not conflict with the constitution of the United States. Each state must have a republican form of government. Congress, having power to admit states into the union, scrutinizes proposed constitutions closely and may refuse admission if it disapproves any of their provisions. It is not deemed wise to amend a constitution except in case of absolute necessity. Changes weaken both confidence and respect for such an instrument and therefore should receive long and careful consideration.

THE ELECTION OF A PRESIDENT.

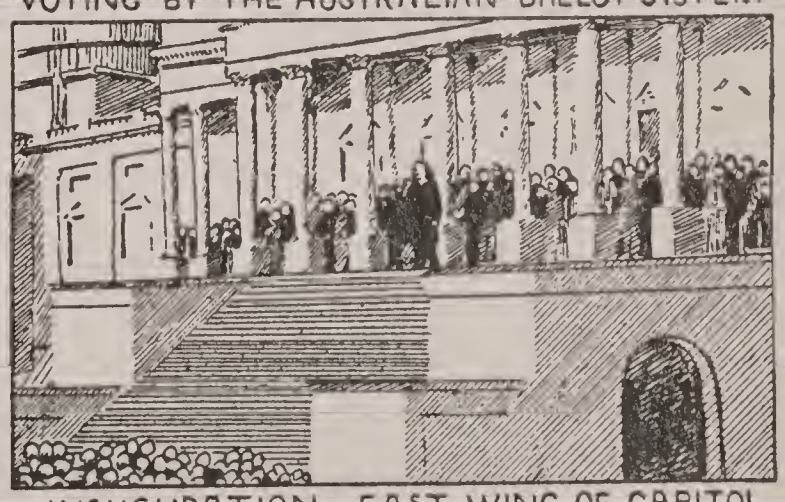
NOMINATION AT PARTY CONVENTION

VOTING BY THE AUSTRALIAN BALLOT SYSTEM

THE ELECTORAL COLLEGE

THE ELECTORS ARE CHOSEN AT THE GENERAL ELECTION. EACH STATE HAS AS MANY ELECTORS AS IT HAS MEMBERS IN BOTH HOUSES OF CONGRESS. ON THE SECOND MONDAY IN JANUARY THESE ELECTORS MEET AND CHOOSE THE PRESIDENT AND VICE-PRESIDENT. ON THE SECOND WEDNESDAY OF FEBRUARY THE ELECTORAL VOTE IS COUNTED

THE REAL ELECTION OF THE PRESIDENT



INAUGURATION, EAST WING OF CAPITOL

Branches of the Government. The United States government is administered under three departments: (1) The Legislative, which makes the laws; (2) The Judicial, which determines their meaning or application; (3) The Executive, which carries the laws into effect. The first is called Congress and consists of the House and the Senate; the second is composed of The Supreme Court and subordinate

courts; the third comprises the President, his Cabinet, and such other men as he may call to his assistance. Each state has similar departments: the lawmaking body being called the Legislature, or General Assembly; the law-interpreting bodies being the Supreme Court and subordinate courts; and the law-enforcing branch being composed of the Governor and his assistants.

A COMPARISON OF THE NATIONAL AND STATE GOVERNMENTS

NATIONAL		STATE
Source of power—National Constitution		Source of power—State Constitution
LEGISLATIVE		LEGISLATIVE
EXECUTIVE	DEPARTMENTS	EXECUTIVE
JUDICIAL		JUDICIAL

Note.—The United States is required to guarantee a republican form of government to every state, and each state must give full faith and credit to the public acts, etc., of other states.

LEGISLATIVE BRANCH

UNITED STATES

Congress:

Senate
House

The Senate is composed of two members from each state, elected for a term of six years. The House membership varies, the number and apportionment being determined after each census. The term of office in the House of Representatives is two years.

Qualifications of Congressmen

Of Senators:

1. Must be not less than 30 years old.
2. Must be citizens of the United States for nine years.
3. Must be residents of the states from which they are chosen.

Must be elected by the regular voters of the state.

Must not be an officer of the United States.

Of Representatives:

1. Must be at least 25 years of age.
2. Must be citizens of the United States for seven years.
3. Must be resident of the state from which chosen.
4. Must not be officers of the United States.
5. May be of any race or color.
6. May be a "delegate" from a territory.

STATE

Legislature:

Senate
House

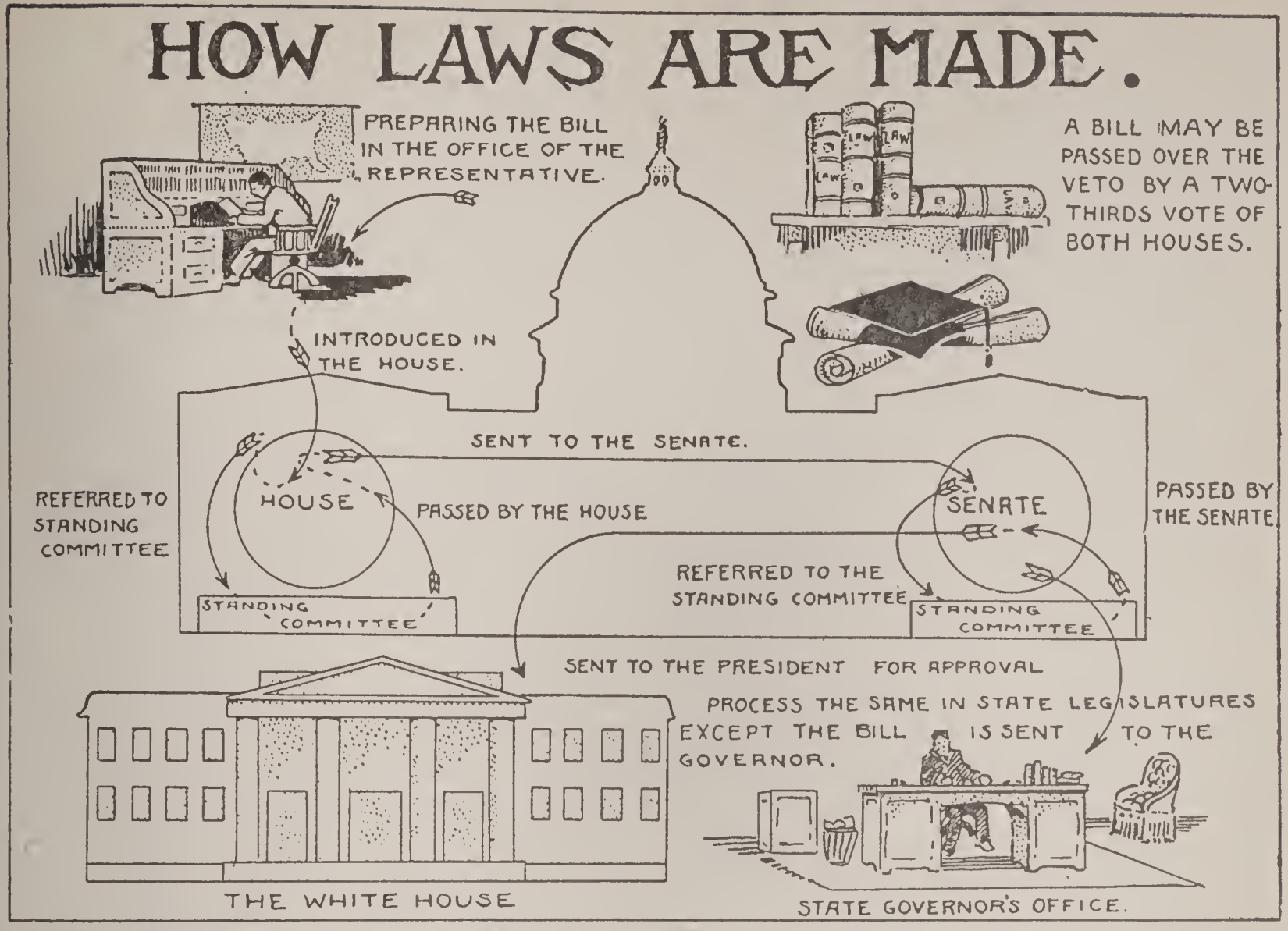
The Senate is supposed to represent the counties; the House to represent the individual citizens. This distinction is largely imaginary;—the senatorial district, for instance, may include more or less than a county. The terms of office in these bodies vary in the different states.

Qualifications of Legislators

Of Both Houses:

1. Must be citizens.
2. Must not be criminals or paupers.
3. Must be elected by the people of their districts.
4. In some states may be male or female.

Other qualifications vary in the different states. They are determined by the state constitution or by laws passed thereunder. In some states the qualifications for members of the upper house are higher than for the lower branch, and its members are often elected for a longer term.


HOW LAWS ARE MADE.
PREPARING THE BILL IN THE OFFICE OF THE REPRESENTATIVE.
A BILL MAY BE PASSED OVER THE VETO BY A TWO-THIRDS VOTE OF BOTH HOUSES.
INTRODUCED IN THE HOUSE.
SENT TO THE SENATE.
REFERRED TO STANDING COMMITTEE
HOUSE
PASSED BY THE HOUSE
SENATE
PASSED BY THE SENATE
REFERRED TO THE STANDING COMMITTEE
STANDING COMMITTEE
STANDING COMMITTEE
SENT TO THE PRESIDENT FOR APPROVAL
PROCESS THE SAME IN STATE LEGISLATURES EXCEPT THE BILL IS SENT TO THE GOVERNOR.
THE WHITE HOUSE
STATE GOVERNOR'S OFFICE.

SPECIAL POWERS OF EACH BRANCH OF CONGRESS

The Senate:

1. May ratify or reject treaties.
2. May ratify or reject presidential appointments.
3. May sit as a Court of Impeachment.
4. Is the judge of the qualification and election of its members.
5. May enact its own rules and expel members.
6. May compel the attendance of members.
7. Must not adjourn *sine die* without the consent of the House.

Other powers and restrictions are given in Sections 8 and 9 of Article I, United States Constitution.

The House:

1. Has the sole power to prefer articles of impeachment.
2. Has the sole power to originate bills for raising revenue.

With the exception of the three powers given to the Senate alone and of the exclusive powers named above, its powers are coördinate with those of the Senate.

SPECIAL POWERS OF EACH BRANCH OF A STATE LEGISLATURE

The powers delegated to senators and representatives of the several states are largely the same and intended to secure wisdom and justice in legislation. In all the states, however, impeachment proceedings must originate in the lower house and be tried in the senate. The senate alone is given power to ratify or reject appointments made by the governor. In most states revenue bills must originate in the house of representatives. Certain prohibitions are made by the national constitution (Art I, Sec. 9) and certain restrictions are found in the constitutions of the various states. It is the specific province of state legislatures to deal with such matters as are not reserved to Congress. (The government of the territories is determined by Congress).

Executive Branch

UNITED STATES

The President,

with his Cabinet, composed of:

1. The Secretary of State.
2. The Secretary of the Treasury.
3. The Secretary of War.
4. The Attorney General.
5. The Postmaster General.
6. The Secretary of the Navy.
7. The Secretary of the Interior.
8. The Secretary of Agriculture.
9. The Secretary of Commerce and Labor.

(In case of the removal, death, resignation, or disability of the President, the then existing Vice-President becomes President. Further succession is by cabinet officers in the order given above).

In addition to his official advisors, or Cabinet, the President is assisted in executing the laws by a number of "Commissions" and other minor bodies and officials. Some of these are:

The Interstate Commerce Commission.
The Civil Service Commission.
The Fish Commission.
The Labor Commission.
The Weather Bureau.
The Librarian of Congress.
The Government Printing Office.
Foreign Ambassadors, Ministers and Consuls.

STATE

The Governor,

with the Administrative Officers:

1. The Secretary of State.
2. The State Treasurer.
3. The State Auditor.
4. The Attorney General.
5. The Superintendent of Public Instruction.

(In case of the removal, death, resignation, or disability of the Governor, the then existing Lieutenant-Governor becomes Governor of the state; or, where there is no Lieutenant-Governor, the President of the State Senate or the Speaker of the House).

In addition to the administrative officers named above, whose duty it is to assist the Governor in the execution of the laws, many states have also:

Railroad Commissioners.
An Insurance Commissioner.
A Commissioner of Lands.
An Adjutant General.
A State Librarian.
A Commission (or Board) of Agriculture.

(For others, see outline below).

While these officers owe their first duty to the state, they are expected to be ever ready to assist the nation.

Judicial Branch

UNITED STATES

Supreme Court:
(Chief justice and eight associates).
Jurisdiction,
Original:
1. Cases involving ambassadors, consuls, etc.
2. Cases when state is a party.

Appellate:
1. Interpretations of law.
2. All cases not excepted by law.

Inferior Courts:
Court of Commerce:
(Presiding judge and four associate judges.)
Jurisdiction,
Cases under laws regulating interstate commerce.

STATE

Supreme Court:
(Chief justice and several associates).
Jurisdiction,
1. Constitutionality of Law.
2. Appeals from lower courts.

Inferior Courts:
(Some states have a court intermediate between the Supreme Court, which it is designed to relieve, and the following).
Circuit, district, or county court:
General criminal and civil jurisdiction not covered by lower courts.
Probate Courts:
Proving wills, settling estates, etc.

UNITED STATES

Circuit Court of Appeals.
  Nine Circuits. (A Supreme Justice and two circuit judges.)
  Jurisdiction,
  Cases appealed from the district and territorial courts.
  The Circuit Courts were abolished in 1911.
  District Courts. One hundred three including Alaska, Hawaii, and Porto Rico.
    (A district judge to each.)
  Jurisdiction,
    1. Crimes against the United States.
    2. Cases connected with revenue postal laws.
    3. Bankruptcy and admiralty matters.

Court of Claims—one:
  (A Chief Justice and four associates).
    Money claims of individuals against the Government.
Court Officers:
  U. S. Commissioners,
    To assist circuit and district judges.
  U. S. District Attorneys,
    To represent U. S. in its civil and criminal cases.
  U. S. Marshals,
    To make arrests in violation of federal law.
  Clerks,
    To keep the records of the various courts.

STATE

Municipal Courts:
  Especial courts in larger cities for cases involving violation of city ordinances.
Justice Courts:
  Petty criminal cases and civil cases involving small sums, usually less than $100.
Court Officers:
  (With duties corresponding to similar U. S. officers).
    Court commissioners.
    State's attorneys.
    State's marshals.
    Clerks and reporters.

LOCAL GOVERNMENT

Many persons desire fuller information as to their forms of local government (county, township, city, etc.). Lack of knowledge of their rights and duties is often the cause of indifferent or bad citizenship. We therefore give space here to a full presentation of the essential features of each of these forms of government in the community.

The Town

In New England the town is essentially the unit of local government. The township, as found in the western states, does not exist; and the county is a division mainly for judicial purposes.

OUTLINE

Size { Fixed by legislature. / May be divided. / Organization varies.

Powers { Are corporate. / Vary in different states.

- Officers
  - Number varies
    - Selectmen (3 to 5), to carry on the public's business.
    - Clerk, to keep the records.
    - Assessors, to determine valuation.
    - Others as needed (collector, school committee, constables, etc).
  - Duties—Defined by statute.
- Town Meeting
  - When held
    - Regular, fixed by law, usually annually in the spring.
    - Special, as occasion arises.
  - How conducted
    - Presided over by a Moderator.
    - Full and free discussion permitted.
  - Purposes
    - To elect officers.
    - To decide upon affairs of local interest.

The Township

In some western states both the town and the township form of government are in use. The township, however, is essentially the basis of operation and representation. As usually organized, the following are the features of township government:

OUTLINE

- KINDS
  - Civil
    - Varies in size.
    - For purposes of government.
  - Congressional
    - Six miles square.
    - Has subdivisions.
    - For fixing land titles.
  - District
    - Usually coincides with civil township in area.
    - For school purposes.

OFFICERS

- Trustees
  - Term, usually three years, one selected each year.
  - Meetings, generally twice a year—spring and fall.
  - Duties: fixing time of elections, equalizing taxes, improving highways, caring for public health, filling vacancies, etc.
- Clerk
  - Term—usually two years.
  - Duties
    - Is secretary of Board of Trustees.
    - Has charge of elections, ballots, etc.
    - Administers oath of office to township officers.
- Assessor
  - Term—usually two years.
  - Duties
    - To list real and personal property in the township.
    - To assess property for taxation.
- Constables
  - Term—usually two years.
  - Duties
    - To act as general police officers of the township.
    - To serve papers in the justice court.
    - To perform other duties fixed by statute.
- Justices
  - Term—usually two years.
  - Jurisdiction, unless restricted by statute, is co-extensive with county.
  - Duties
    - To keep a docket of official acts.
    - To try
      - Civil suits, to protect right or prevent wrong.
      - Criminal suits, to punish offenders or hold them to higher courts.

- **Road Supervisors**
  - Term—usually two years.
  - Duties
    - To post taxes assessed.
    - To look after highways and bridges, and the labor due on them.
    - In large counties may order election of township collector.
- **School Directors**
  - Term—three years, one third selected each year.
  - Duties
    - To act upon claims against district.
    - To hire or discharge teachers.
    - To maintain schools and schoolbuildings.
    - To employ such persons as may be needed.
  - Meetings—as fixed by law or determined by convenience.
- **Township Meetings**
  - When held—by the residents at such time as the law fixes.
  - Purpose
    - To discuss public affairs of the township.
    - To decide upon public measures.
    - To determine public expenditures.
  - Powers
    - Townships are bodies corporate (can sue and be sued).
    - Special powers of townships usually fixed by statute.

City or Municipal Government

A city has great power and a great influence. The large cities of the world are usually leaders in all that constitutes the essentials of good citizenship. It is of vital importance to the welfare of the individual, to the destiny of the community, and to the future reputation of the state that the city shall be a power for good. To this end it is important, since cities constitute so large a part of our government, that every resident or possible resident of a city shall understand fully the functions and also the

Forms of City Government

- **How organized**
  - a. By the terms of a general law.
  - b. By securing a special charter.
- **Model of a City or Municipality**
  - **The Mayor**
    - Term 1 to 4 years. Presides at council meetings.
    - Functions partly administrative, partly legislative.
    - Duties mainly executive or appointive.
  - **The Common Council**
    - Usually one body called Aldermen.
    - Two from each ward, one elected every other year. Must live in ward.
    - Term is one to four years.
    - Duties are mainly to pass ordinances for the city's government and to control city finances.
  - **Classification**
    - First class—15,000 or over.
    - Second class—2,000 to 15,000.
  - **Officers**
    - There is no uniform rule as to election or number. Usually the mayor, councilmen, and the heads of certain important departments are elective; the remaining officials get their offices by appointment.
    - *Duties.* Primarily, the mayor and council and the other officers are expected to unite in having the city accomplish its purpose as a part of local government. The administration of justice; the assessment and equalization of taxes; the improvement and protection of property; the care of public morals; the promotion of civic interest; the welfare of the schools—these and many other matters in the city are dependent upon faithful officials.

County Government

(The county seat—the center of county government).

Purposes

- In the New England States: Usually for the administration of justice and for convenience in elections.
- In the Southern States: For the administration of all local government.
- In the Western States: To coöperate with the township in local government.
- In the other States: Usually divides the functions of local government with the township and the town.

OFFICERS

We give here the officers of a Minnesota County. This is merely to give a general idea of county organization. Both the names and functions of county officers vary in the different states, but their general purpose is the same in all.

- The County Board: Composed of 3 to 7 commissioners or supervisors, elected by the people, and having corporate powers.
- The County Auditor: Is secretary of the Board. Keeps the county accounts, tax lists, and valuable papers.
- The County Treasurer: Is guardian of the public moneys, financial agent, and collector.
- The Co. Supt. Schools: Usually licenses teachers and has oversight of the schools.
- The Register of Deeds.
- The County Surveyor—Determines property boundaries.
- The County Attorney—Attends to county's law matters.
- Judge of Probate—Protects property of deceased persons.
- County Sheriff—Preserves the peace and serves the courts.
- County Coroner—Investigates suspicious deaths.
- Clerk of the Court—Records court proceedings.
- Court Commissioner—Acts in the absence of a judge.
- Removals—Usually by the governor after trial.
- Vacancies—Generally filled by the County Board.
- Oath and Pay—An oath to perform his duties is required of every official. Compensation (except their own) is determined by the County Board or may be fixed by State law.

Form of State Government

PARTS:

- The Congressional Districts.
- The Senatorial and Representative Districts.
- The Judicial Districts.
- The Counties.
  - Cities.
  - Incorporated Villages.
  - Townships.
  - Towns.

These may overlap, according to legislative regulations.

FUNCTIONS

(These vary according to each state's conception of its duty to its own people. The classification given is intended as suggestive merely).

The Constituent Functions

- Keeping order.
- Protecting persons and property.
- Administration of justice.
- Determining duties and relations of citizens.
- Determining contract rights.
- Fixing relations between husband, wife, and children.
- Regulation of property rights and liabilities.
- Definition and punishment of crime.
- Dealing with any danger to or encroachment of state interests.

The Ministrant Functions

- Regulation of labor and capital.
- Regulation of trade and industry.
- Regulation of public utilities.
- Maintenance of thoroughfares and their regulation.
- Care of the public health.
- Fostering public education.
- Promoting agriculture, forestry, mining, and similar industries.
- Caring for the poor and the helpless.
- Consideration of sumptuary laws.

OFFICIALS

1. The Governor (See "Executive Branch" above).
2. The Legislature (See "Legislative Branch" above).
3. The Judiciary (See "Judicial Branch" above).

Lieutenant Governor—To preside over the state senate and to act in case of a vacancy in the office of governor.

Secretary of State—To keep the great seal (when not kept by the Governor); to preserve state papers; to authenticate state documents; to preserve acts of the legislature; to superintend the distribution of public documents, etc.

State Treasurer—To discharge duties similar to those of the county treasurer, which see.

Auditor of State—To act as state bookkeeper and in general to superintend the state's fiscal affairs.

Attorney-General—To represent the state in suits at law and to give legal advice to state officials or to the legislature.

Superintendent of Public Instruction—To exercise general supervision and control of the educational interests of the state.

Note.—The officials named above are common to the states generally.

In addition most states have:

Railroad Commissioners—To regulate railroads and their rates.

Insurance Commissioners—To regulate the operation of insurance companies.

Land Commissioners—To stimulate immigration and farming, etc.

Fish Commissioners—To preserve and increase the state fishes.

Dairy Commissioners—To secure pure dairy products.

Oil Inspectors—To test oils offered in the state.

State Board of Health—To improve and preserve public health.

State Librarian—To care for the state library.

Adjutant General—To inspect and manage the state militia.

Mine Inspectors—To supervise the operation of mines.

Other minor officers as needed.

THE TEACHING OF CIVICS

Methods of inculcating the duties and the principles of government have been indicated above. So important is this subject, however, that some suggestions as to methods of teaching citizenship are given here.

The Principles of Law

Under this head older pupils or civic gatherings might discuss:

1. The Principles of International Law.

In Peace
- Sovereignty—what is it?
- Territory—how obtained and held?
- Aliens—what are their rights and relations?
- Intercourse—distinction between diplomacy; treaties; obligations.

In War
- Ultimatum—what is it? How given?
- Reprisal—what is it? When proper?
- Embargo—Purpose; how maintained?

Obligations
- To belligerents.
- To neutrals.

2. The principles of Municipal Law.

Note.—The term municipal law, as here used, whether written or unwritten, means the rules of law regulating the relations between a state and its citizens, or between the citizens themselves. It is usually divided into Common Law and Equity, and its purpose is to secure right and to punish wrong.

Rights
- Political—right to take part in the government.
- Civil—Absolute, relate chiefly to property.
- Relative
  - Husband and wife; employer and employe.
  - Parent and child; guardian and ward.

Wrongs
- Tort, a private wrong.
- Crime, a public wrong.
- Arrest, how, why, and when made?

Lessons in Civics

Many of the rights and obligations of the citizen may be taught in the home by precept and example. More of civics may be learned by specific lessons on the forms of civil government as outlined above or as found in special text-books and by instruction and illustration whenever opportunity presents. The special work in this line by Daughters of the American Revolution and by various civic associations has a powerful influence in promoting good government. In addition the following is helpful, modified as circumstances may demand.

I. Method in the Home and Kindergarten.
   1. Conversation; songs; games.
   2. Lessons in Interdependence.
      - Relation of child to other members of family.
      - Services of the grocer, baker, carpenter, farmer.
      - Usefulness of cow, sheep; companionship of birds, cats, etc.

II. Method in the Lower Grades.
   1. Conversation; songs; special programs.
   2. Foundation of History.
      - Historic Scenes.
      - Stories of heroes; Indian life; the Pioneers.

Historic anniversaries—Lincoln's birthday, Memorial Day.
Talks or lessons on patriotism.

3. Public Service and National Life.
   Postoffices, life-saving stations, lighthouses, libraries, parks, means of transportation, City of Washington.
4. Study of Town or City.
   Paved streets, new buildings.
   Firemen, policemen, garbageman, postmen.
   Beautifying the home and school grounds.
   Street cleaning and sprinkling.
   Honesty in public officials.
   Use and abuse of public parks.
   How to promote the growth and welfare of town or city.
5. Duties of a Citizen.
   He must not cheat the state or the railroads, nor accept bribes.
   He must take an interest in public affairs—must vote.
   He must make an honest living.
   He must not shirk public duties.

III. Method in the Higher Grades.

1. Class recitations; special topics; written summaries by pupils on blackboards; quiz; Friday afternoon exercises.
2. Aid in comprehension of United States History:
   (1). Trade relations and routes of commerce.
   (2). Study and comparison of Massachusetts Colony and Virginia Colony.
   (3). Social conditions of England at close of French and Indian War.
   (4). Conditions in England which led to the formation of the United States government.
3. Government of Home States.
   (1). School district, town, township, city (charter), county, state.
   (2). Constitution—what it is, why it is.
   (3). Departments—legislative, executive, judicial.
   (4). The purpose and function of each of these.
4. U. S. Government.
   (1). Purpose, parts, growth.
   (2). Articles of Confederation.
   (3). Constitution.
   (4). Domestic and foreign difficulties.
   (5). Steps of progress.
   (6). Principles of expansion.
   (7). Compare conditions in North and South; East and West; city and country.
   (8). Inventions and industrial development.
   (9). National problems (National and States rights).
   (10). The present Congress.
   (11). The Nation's resources
      a. Natural.
      b. Financial.
      c. Individual.

In General.

(1). Distinction between natural right and legal right.
(2). The necessity for government and for a division of duties and powers.

(3). How different organizations may promote good government and how each individual may assist in this work.
(4). What is meant by civil liberty? How designing persons may take away the citizen's rights.
(5). Why some things are restricted to the nation; to the state; to the community.
(6). Why some things are prohibited to the nation; to the state, etc
(7). Why there may be antagonism between a legislator's interests and his duty.
(8). Why meetings of the people to discuss and regulate local affairs are important.
(9). Why a citizen should accept an office; perform jury duty; pay his share of the taxes; or take an interest in public affairs.
(10). The historical growth of government.
(11). The leading governments of the world are:

In North America: The United States, Mexico, Canada, Cuba, Guatamala, Honduras, Nicaragua, Salvador, Panama and Costa Rica. (The last six are usually grouped as "Central America.")

In South America: Brazil, Argentina, Venezuela, Colombia, Ecuador, Peru, Chili, Bolivia, Guiana, Paraguay, and Uruguay.

In Europe: The British Empire, the Russian Empire, the German Empire, France, Italy, Spain, Portugal, Norway, Sweden, Denmark, Turkey, Greece, Austria-Hungary, Belgium, Holland, and Switzerland.

In Asia: China, Japan, Persia, Siam, Anam, and Afghanistan.

In Africa: Egypt, Morocco, Abyssinia, Congo Free State, and the Union of South Africa.

In Australasia: Commonwealth of Australia and New Zealand.

Make a study of each of these to ascertain:

Its form of government.
Its predominant idea.
Its disposition as to world peace. (See Hague Tribunal.)
The attitude of its people toward the home government.
What it is doing to keep up with the march of civilization and the relation of this to its history.
Why there are so few states in Asia and Africa.
The right of certain nations (England, Russia, Germany, France, Turkey, etc.) to own, control, or determine the policy of distant sections of the world.
How far its commerce has a bearing upon its permanency.
Is it likely to remain one of the governments of the world? Why?

THE INITIATIVE, THE REFERENDUM, THE RECALL

Under their respective heads in the body of this work, these subjects have received a general and instructive presentation. They are reviewed here because of their intimate association with the subject of civics and because they are live features of the history of the United States. To satisfy the awakened interest and the desire for information on these topics, we give a brief epitome of each subject, together with arguments advanced for and against them as measures of government.

The Initiative.

1. A proposal of legislation by the people direct.
2. A mandatory substitute for the petition.
3. The legislature must pass an act submitting the proposed measure to a vote by the people.
4. If approved, the measure becomes a law, thus giving the people power to force the enactment of good measures.
5. The law may be general or local (an act or an ordinance).

The Referendum.

1. Due to the initiative act of the people. Refers the measure to their decision.
2. The vote given may be local or general in its application.
3. Its purpose to correct or remove legislation thought vicious by the people.
4. Its principle seen in the submission of constitutions to the people.
5. The voice of the people in the matter is final, as the object is to ascertain their will.

The Recall

1. A method of removing an objectionable official during his term of office.
2. Operative through a petition signed by a certain proportion of the legal voters. The proportion is determined by statute.
3. Intended to supplement the work of the Initiative and the Referendum by its application to individuals.
4 An elected official removed by partial vote is usually given permission to appeal to all the people.
5. Both the Recall and the Initiative and Referendum are intended to give the minority a voice in government as well as to prevent abuses by officials.
6. A recognition of the people as the source of power. Regarded dangerous by some because of its liability to abuse.

Arguments for:

1. The citizens who elect an individual to office should have the power and the right to remove him if found to be corrupt or incompetent.
2. Reserving this power and this right to the people does not detract from the dignity of the office.
3. All proper laws of recall require a sufficiently large vote to prevent the measure being used as a means of gratifying personal or political spite.
4. The measure prevents special interests from electing and retaining in power those favoring these interests against the interests of the citizens as a whole.
5. The operation of a recall is necessarily deliberate and therefore prevents hasty or frenzied action.

(Summarized from *The Chicago Evening American.*)

Arguments against:

1. The initiative, the referendum, and the recall, as now proposed, are due to democracy gone mad.
2. They make out of legislatures mere bureaus of registration and take from them all conclusive authority.
3. Stability and independence in office for a fixed period of time are essential. The recall is peculiarly objectionable as applied to the judiciary. Judges will be led to study public opinion rather than law or equity.
4. If an official proves unworthy, the law now provides a remedy in impeachment and removal by an impartial court.
5. The fathers made this a representative, not a direct government, and the recall will make cowards.

(Summarized from an address by Archbishop Ireland.)

AMERICANIZATION

The Meaning of America

"America is Opportunity." A newspaper reporter asked five people at random —a waiter, a musician, a laborer, a clerk and a broker—"Why are you glad you are an American?"

The waiter replied: "Because Americans are the best people in the world, and because there is no country that even comes close to Uncle Sam's country."

The musician said: "Our laws, our civilization, our national institutions, are the best on earth."

"What other country is there," asked the laborer, "where a man can have the freedom, the opportunity, the comfort and can earn such a good living as here?"

"The blessing of being an American," replied the broker, "is too complicated a feeling to allow me to define it."

"To be an American is to be one whom men of every other nation admire for independence, good living, clean morals—in fact, every good and great trait—" said the clerk.

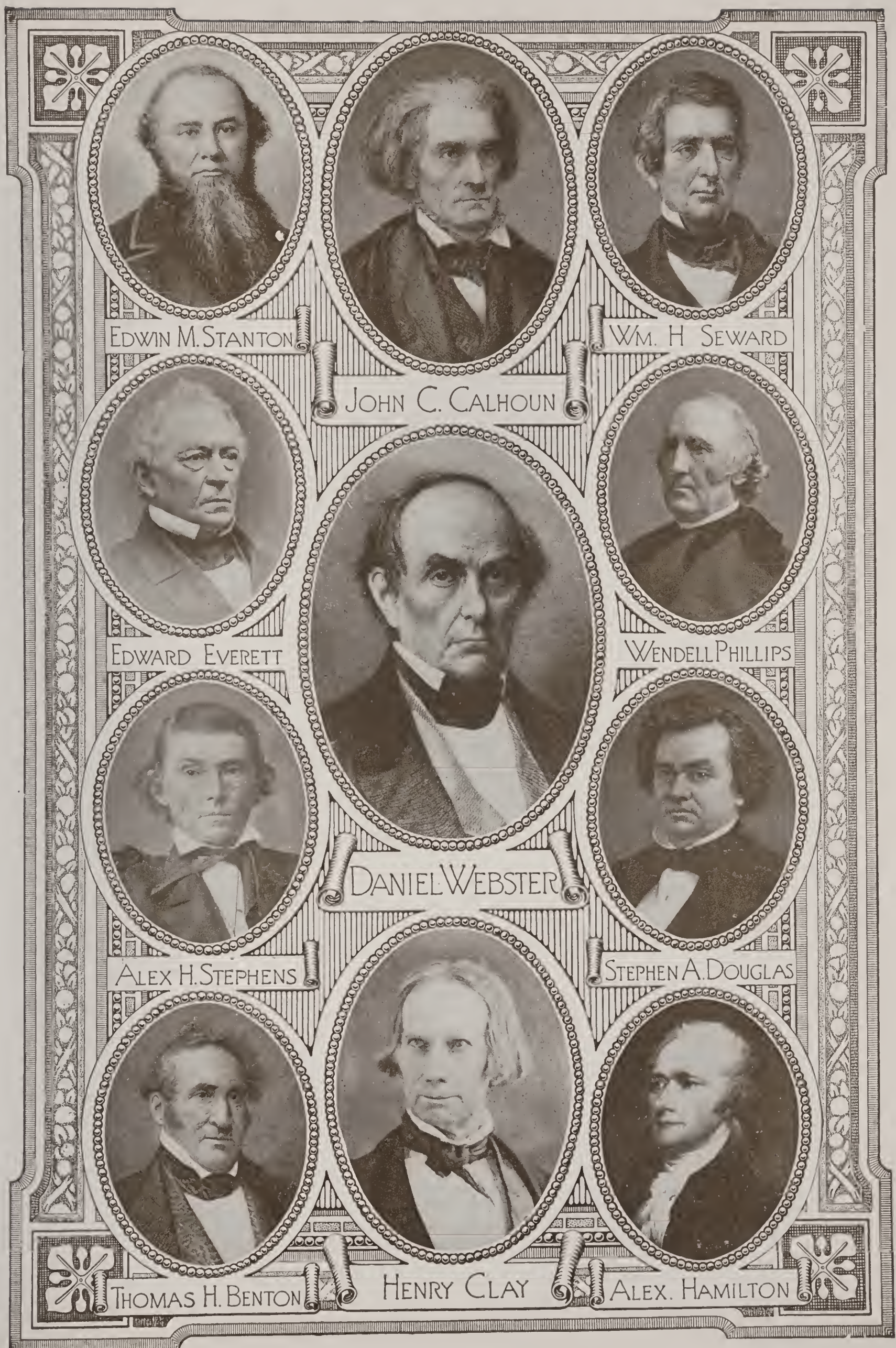
Summarized, these answers tell us that America offers the greatest opportunity for material prosperity; that she has the best laws, the most desirable national institutions and the freest and most independent citizens of any country in the world.

The advantages enjoyed by Americans today, are the result of three centuries of toil and sacrifice by the founders and leaders of the nation. Our forefathers came to America to establish a country dedicated to freedom, and through all our history our chief purpose has been to maintain liberty within the law. Every boy and girl in our public schools, as well as the foreigner who enters our borders, should become acquainted with the story of our nation—its founders and its leaders. This story is of special interest to American citizens. It is the story of their own country, of the land of their birth and the scene of their activities. It is the story of the founding and development of those institutions to which are due our prosperity and happiness, and under whose fostering care the thirteen weak colonies at the close of the Revolutionary War have become, in the twentieth century, the wealthiest and most powerful nation of the world. (See History, Vol. X, Page 80, for outlines.)

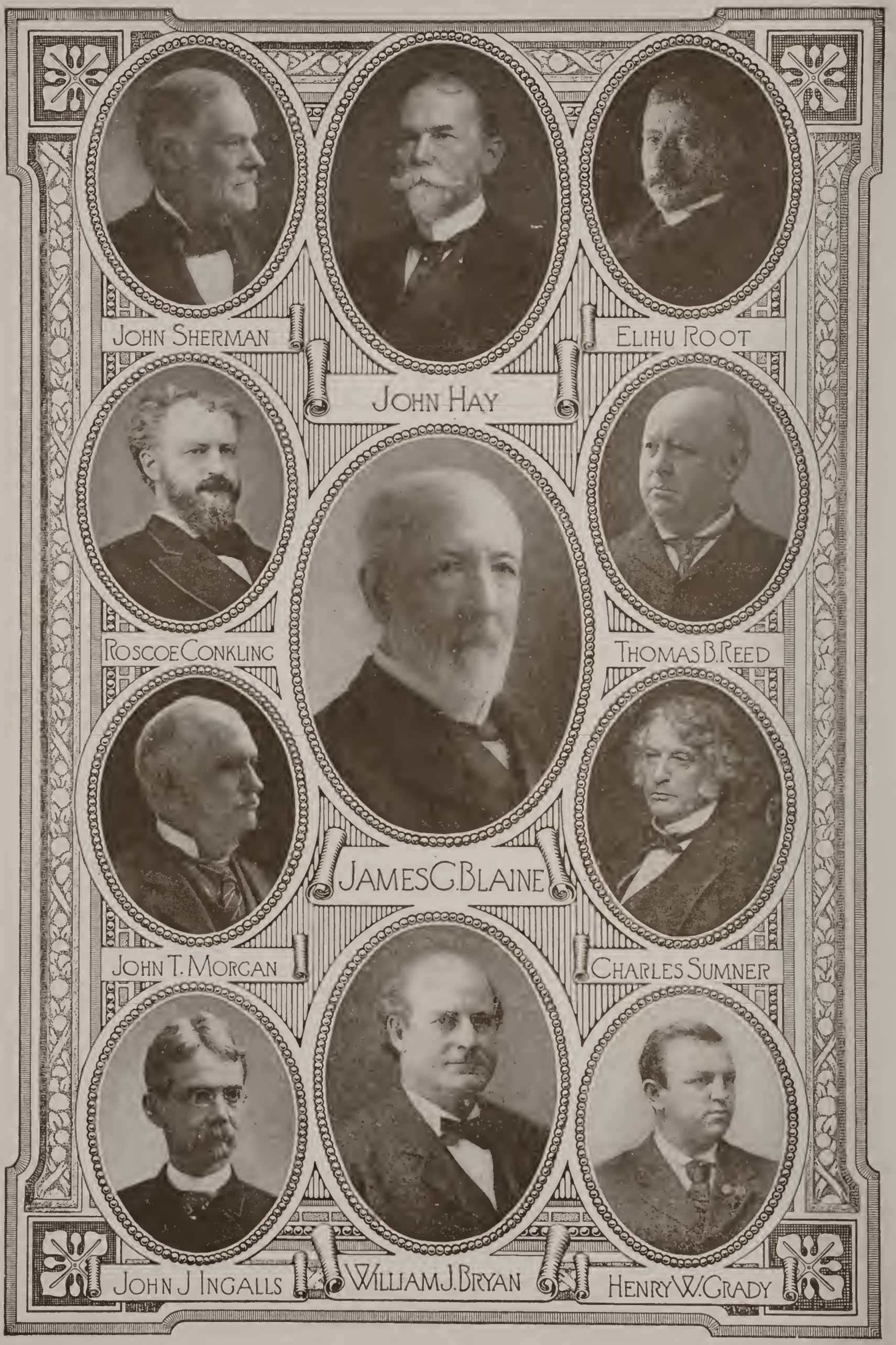
Geographical Conditions. Geographical conditions have always been a determining influence in the development and destiny of nations, and in no country are these conditions more favorable than in the United States.

Location. No country is more favorably located for agriculture, manufactures and commerce than the United States. Its extent from north to south gives the country a climate at once salubrious and exhilarating. Two great oceans—the Atlantic and the Pacific—wash its shores, and excellent harbors are found on each coast. Moreover, the country's position in relation to other land masses is such that its seaports are within easy sailing distance of the chief markets of Europe and the Orient.

Surface. The barrier of the Appalachian Mountains confined the early colonists for a century and a half to a narrow strip of country along the coast. Here the



AMERICAN STATESMEN AND ORATORS



AMERICAN ORATORS AND STATESMEN

foundations of our institutions were laid, and the type of civilization that was to dominate America was established before the movement westward began.

Between the Appalachian and the Rocky Mountains lies the Great Central Plain that is the most important agricultural region of the world.

Beyond the Great Central Plain are the Rocky Mountains, rich in minerals, their snow-capped peaks feeding the rivers that water the mountain valleys and the plains beyond. In the beauty and grandeur of their scenery these mountains are unexcelled, and no other country contains such natural wonders as those found in Yellowstone National Park, Yosemite and the Grand Canyon of the Colorado.

Beyond the Rockies lies the narrow Pacific coast plain, a region of great fertility, much of which has been opened to cultivation by the great irrigation projects carried out by the National Government. (See IRRIGATION.) In the northern part of this region are the extensive forests which supply the greater part of the lumber used in the country.

Inland Waterways. In addition to the harbor facilities upon her seaboard, the United States has an extensive system of inland waterways, some of which carry the most extensive traffic of any highways of commerce in the world. The Great Lakes have a combined area exceeding that of Illinois and Indiana, and on their shores are a number of excellent harbors. By means of canals and the St. Lawrence River, vessels can pass from these lakes to the Atlantic Ocean, and provisions have been made for an outlet to the Gulf of Mexico by the use of canals and the Illinois and Mississippi rivers. The Mississippi and its tributaries include also over 12,000 miles of navigable streams, so that the vast interior of the country has inexpensive and ready access to the sea.

Climate. The extent of territory and variety of surface give the country a wide range of climate, and all agricultural products of the temperate and sub-tropical regions can be successfully grown. The climate is also equally favorable to a large variety of manufactures.

NATIONAL RESOURCES. The extent of the coal measures in the United States is not fully known, but, exclusive of those in the Rocky Mountains and Alaska, they exceed 200,000 square miles. This is equal to the combined area of California and Illinois. Petroleum is widely distributed, and of gold, silver, copper, iron and other metals we have enough to supply the world for centuries. Clay, cement and building stone are found in practically all localities. Thousands of streams furnish water power, which, when transformed into an electric current, can be carried to any locality desired. We have both an abundance of raw material and the power necessary for its manufacture. We have become the leading manufacturing nation, and supply not only ourselves, but the countries of Europe, with many useful products.

THE PEOPLE. Three nations—the Spanish, the French and the English—were first engaged in colonizing America. Later, the Dutch added the German element, by settling in New York. Some trace of Spanish influence remained for a long time in the southwestern part of the country, and the French maintained their institutions in Louisiana until after that territory was purchased by the United States. With these slight exceptions, for the first two centuries of our history the English so far outnumbered all other nationalities that they gave permanent form to our institutions, civilization and laws.

Under these institutions the American people have possessed and developed an empire upon which the sun never sets and whose influence is felt around the world.

The teacher should impress these and other facts relating to the growth of our country upon her pupils, and help them to realize their rich heritage as American citizens.

The American Government.

Forms of Government. The different forms of government are described in the article *Government* in these volumes. See also Democracy; Republic. The government of the United States is a Federated Republic, that is, a government in which each state has control of its own affairs, but is subject to the National or Federal Government in its relations to other states and foreign nations, and in the making of its laws, which must be in harmony with the Constitution of the United States and the laws enacted by Congress.

Teaching Civics. Complete outlines of the government of the United States, of a state government, and a county government will be found in the chapter *Civics.* Vol. X, Page 111. These should be carefully studied in connection with the teaching of civics. But the teacher should vitalize these outlines by giving concrete illustrations of the working of the various branches of the government and leading the pupils to discover others. Illustrations of the working of city and county government are easily found and illustrations of state government are but little more difficult to find. But comparatively a small number of adult American citizens realize the many ways in which the National Government comes to their assistance. Uncle Sam not only stands with outstretched hand to welcome the stranger to his domain, he knocks at the door of every household, as well, saying, "Let me in and I will help you." However, only a few heed his call. It is within the province of the teacher to so impress the value of this service upon her pupils that they will do much towards extending it in the community. The perfunctory teaching of civics exerts but little influence towards making good citizens. But when the subject is vitalized by concrete illustrations and applications, the pupils become enthusiastic and acquire an abiding respect for and appreciation of the government.

Helping the Citizen

The following are some of the means employed by the National Government for the purpose of helping those who ask for assistance.

Teachers. The government extends its helping hand to every teacher in the land, no matter how remote or how small her school may be. The United States Department of Agriculture and the United States Bureau of Education, each issue a larger number of bulletins and circulars designed especially to assist the teachers of the rural schools. This material can be obtained free of charge by writing for it. Write the Secretary of Agriculture, Washington, D. C., and ask for a printed list of the publications of the department designed for rural schools. From this list you can select the numbers you need. By writing the Commissioner of Education, similar information can be obtained relating to the publications of the Bureau of Education. The Bureau also provides reading courses for rural teachers.

Unfortunately many people who are not acquainted with these publications consider them of little or no value. Every teacher who leads her community to realize the value of this material will confer a distinct service upon that community. *There are no more authentic publications in the world on the subjects of which they treat than those issued by the various departments of the United States Government.*

Boys and Girls. If the boys and girls of your school are interested in organizing boys' and girls' clubs, by writing the Department of Agriculture at Washington, they will obtain full directions for forming and conducting the organization. Moreover, they will probably be visited by a county agent who will aid them in their work. This agent is paid partially by the United States and partially by the State.

Circulars or bulletins containing information on raising chickens, bees, pigs, and

calves, and on various processes of canning fruits and vegetables and numerous other household matters can be obtained by writing for them.

FARMERS. Both the national and state governments combine to aid the farmer, and no other industry receives greater attention than agriculture. The Department of Agriculture and the State Agricultural Colleges have issued thousands of bulletins and circulars covering every phase of agricultural work. Special instructors, generally known as county agents, and demonstrators paid out of state and United States funds are found in many counties giving their services to the farmers without charge. The Department also provides courses of reading for rural homes, and aids in forming rural community organizations. It fosters the improvement of live stock, aids in marketing farm products, and shares with the state the expense of making and maintaining good roads. Through the Farm Loan Banks financial aid is extended to farmers who can meet the conditions of the loan.

SETTLERS. In 1919 there were in round numbers, 217,000 square miles or 138,788,684 acres of vacant public land in the United States. It is estimated that at least one-half of this is tillable land. The government aids new settlers and those who wish to enter upon agriculture as an occupation by selling this land at extremely low prices and on easy terms of payment, even when the land is in regions that are irrigated at government expense.

WORKING MEN. The Department of Labor of the United States Government was organized in 1913 "to develop the welfare of wage earners of the United States, to improve their working conditions and to advance their opportunities for profitable employment." The Secretary of Labor is a member of the President's Cabinet. This department gives its attention to labor conditions throughout the country, and maintains free employment offices in the largest labor centers. It adjusts labor disputes and safe-guards child labor.

BUSINESS MEN. The Department of Commerce promotes foreign and domestic commerce, has charge of the light house service, the coast survey, the inspection of steamships and numerous other lines of industry directly connected with commercial affairs.

The Interstate Commerce Commission looks after transportation between the States, and regulates charges on railways and boats engaged in interstate traffic.

But the greatest service which the government renders business consists in assuring the country and the world that the American money system is stable and sound. Every time you take a bank note or a coin in your hand, remember the United States is back of it. Our currency is good the world over because it is issued by the government, and all the nation's wealth is pledged for its payment.

Through a banking system, the distribution of money is equalized and loans are regulated. See BANKS; BANKS, FEDERAL RESERVE; MONEY.

IMMIGRANTS. The United States has always welcomed the immigrant. The Bureau of Immigration has charge of the enforcement of all immigration laws, and the protection of immigrants when they land. They are assisted in finding work and in reaching their destination. Every effort is made to induce the immigrant to learn the English language and to become an American citizen. In this work the government cooperates with the school authorities of the various states. See IMMIGRATION.

ALL CITIZENS. We have mentioned a few of the services which the government renders citizens engaged in various lines of industry, but the space allowed this article will not admit of extending the list. There are, however, certain lines of service which have for their purpose the welfare of all the people, regardless of their occupation. Among them are the mail service, which brings our letters and papers to our door, and the service of the Weather Bureau, whose forecasts

of weather conditions reach every part of the country. The government protects our forests, conserves our water power, and establishes irrigation systems for the reclamation of arid lands and converting many desert areas into fruitful farms.

All our freedom from the petty tyrannies of local government, too often found in other countries, is due to our Nationla Government, for all laws and ordinances—state, county, city and town—must conform to the principles of government set forth in the Constitution of the United States. The government is ready to aid its citizens in every line of worthy endeavor; it is equally ready to punish those who transgress its laws.

Necessity for Emphasizing Americanism

Present Conditions. The World War disclosed conditions into which the country had unconsciously been drifting for several decades. We suddenly became aware that there existed in many localities a lack of respect for our laws, and a strong desire on the part of quite a large number of inhabitants to overthrow the government—by agitation if possible, by force if necessary. This discovery was something of a shock to all loyal citizens and their strenuous efforts to counteract such influence soon checked its progress.

This sentiment against the government was the natural outgrowth of the neglect on the part of both the authorities and the citizens of those who had come to this country in large numbers and settled in communities, where they continued to perpetuate their own ideas of government and the institutions of their respective countries. What information they obtained about the government of the United States came through those whose purpose was agitation for their own selfish ends. It is needless to say that these people were wholly misinformed and easily led to foster ideas antagonistic to a government that was willing to render them all practical assistance.

Ignorance of the government under which a large foreign element lived was the underlying cause of the internal dissensions.

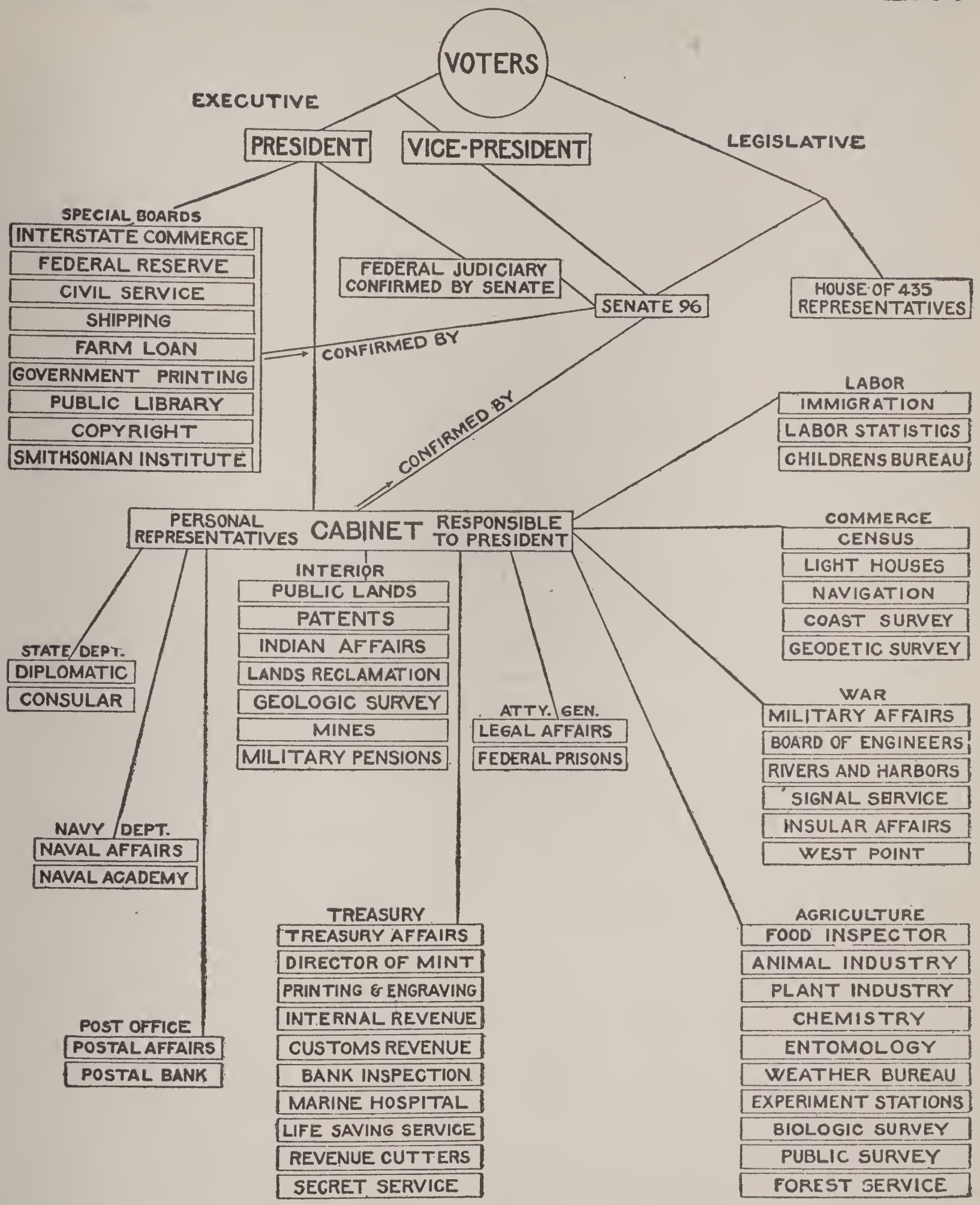
If the foundations of our government are to remain secure, it is necessary to take such measures as will prevent the recurrence of such conditions in the future, and the public schools are the chief agency through which this must be accomplished.

Changes in Our Population. Since 1820, 33,200,000 foreigners have found a home within the United States. This increase has been at the rate of over 800 people a day. The leading countries from which the immigrants have come in order of their importance are: Great Britain and Ireland, Germany, Austria-Hungary, Italy, Russia and the Scandinavian countries.

Previous to 1890 most of the immigrants came from the countries of Northern Europe, and they readily adopted our customs and institutions and became American citizens. From 1890 to the outbreak of the World War, nearly all immigrants came from the countries of Southern Europe and Russia. These people settled in communities and have taken less interest in becoming Americanized.

Most of the European countries are inhabited by people of one nationality, who speak the same language. No other country has such a mixed population as the United States. More than fifty languages are spoken within our borders. There are more than three million people over ten years of age who do not understand English, and more than two million over twenty-one who cannot understand English. In many settlements in New York, Chicago and other large cities, and even in some towns, English is a foreign tongue and a person of American parentage would be considered a foreigner by the population.

ORGANIZATION OF FEDERAL GOVERNMENT



This design shows that the responsibility for the government rests with the voters. They elect the President and the members of both branches of Congress, who are responsible to the people. The President appoints the heads of departments, who constitute his Cabinet, and they must be confirmed by the Senate. Likewise the judges of the Federal Courts, the members of government commissions and the postmasters of the largest cities are appointed by the President and confirmed by the Senate.

But the work of Americanization is not confined to the foreign element. There are altogether too many native-born Americans whose attitude towards the government is one of apathy; who fail to cast their vote on election day, and whose active interest in the affairs of the nation is confined to wholesale criticism of those holding public office. One voter in seven failed to cast his vote in the presidential election in 1916, and in state and local elections the percentage of those not voting is much larger. In every school and every community Americanization should be the watchward of the hour.

How to Proceed

1. Knowledge of the Subject. The teacher who knows American history and civil government and is enthusiastic in teaching these subjects will find her pupils interested in them. Where the school contains a number of foreign-born children, the teacher should learn something of the government of the country from which these children come so she will be able to explain to them the different methods of carrying on the government in their country and in the United States.

In making these comparisons no reflection should be cast upon the government of the child's native land. If in France, you would not listen unmoved to a Frenchman's disparagement of the government of the United States. No more will an Italian child listen calmly to your disparagement of the government of Italy.

2. History Stories. Children become fascinated with stories of pioneer life. Read or tell history stories to your school. Dwell more upon what the early settlers accomplished than upon their hardships and sufferings, and show how what they accomplished led to the accomplishment of something greater. The charters which the New England colonies obtained, for instance, became the constitutions of the respective states after the passage of the Declaration of Independence, and these in turn became the basis for the Constitution of the United States. In the study of wars dwell upon the causes and the results of the war, particularly of the Revolutionary War. The campaigns and battles were means to an end. The result was a free and independent country.

3. Biography. Children and youth are hero worshippers, and no method of impressing upon their minds high ideals of character and patriotism is as effective as the study of biography. American history is built around the lives of the country's eminent men and women. Stories of these lives may sometimes be read by the pupils and sometimes told by the teacher. No pupil can study the early life of Abraham Lincoln, for instance, without having his resolution to live an industrious, honest and clean life strengthened. The biography of Frances Willard has exerted great influence upon the womanhood of America, as has that of Queen Victoria upon the womanhood of the world. Let the pupils become filled with the spirit of devotion to high ideals and to duty that has actuated the leaders of America, and they will become loyal Americans.

4. Literature. Extracts of the speeches and writings of our leading statesmen, orators and authors exert a strong influence in developing a love for one's country. Many of these should be learned and recited by the school. The following illustrate the point in hand. The teacher should find many others.

"Learn the laws and obey them."

—*Lincoln.*

"Our government rests in public opinion. Whoever can change public opinion can change the government."

—*Lincoln.*

"I pledge my allegiance to my Flag and to the Republic for which it stands, one nation, indivisible, with liberty and justice for all."

"Every good citizen makes his country's honor his own, and cherishes it, not only as precious, but as sacred."

—*Andrew Jackson.*

"A great nation is made only by worthy citizens."

—*Warner.*

"Nothing is politically right that is morally wrong."

—*O'Conner.*

"Everything learned should be flavored with love of country."

—*Edwards.*

"The future of America depends on a clear understanding of the Principles of her Government. Indeed, the future of the world will be modified by our stand for American doctrine."

"I will obey the law. America is a Republic, where law is king; a government of the people, under the law, for the general welfare. Each citizen must be loyal, or popular government fails in him. Every lawbreaker is a traitor to his government, and a burden to his fellows.

—Extract from *The New Citizen.*

"A good citizen is one who observes all national, state, and municipal laws and is willing to assist in their enforcement; he is honest and fearless; he is loyal to home, friends and country, and he does what he can to assist in promoting the moral, intellectual and physical welfare of the people."

—*Cincinnati Americanization Committee.*

The right to vote implies the duty to vote right; the right to legislate, the duty to legislate justly; the right to judge about foreign policy, the duty to fight if necessary.

—*E. A. Alderman.*

"Let this nation fear God and take its own part. Let it scorn to do wrong to great or small. Let it exercise patience and charity towards all other peoples and at whatever cost stand for the right. The only kind of peace worth having is the peace of righteousness and justice."

—*Theodore Roosevelt.*

"True patriotism means four things:

1. It means reverence for the past traditions of one's country.
2. It means devotion to the present institutions of one's country.
3. It means loyalty to the future ideals of one's country.
4. It means valor to fight, if need be, in defense of these same institutions and ideals."

—*Robert Goldsmith.*

"Individual liberty, *not license,* constitutes the very bedrock of our government. I mean by this, freedom within the limits of the law, and that law nothing more or less than the will of the people constitutionally expressed. If this cornerstone of liberty is to remain, our citizens must be taught the history of their country, first-hand; they must fully understand the government under which they live. They can never be content with what others think; they must think for themselves, and we must do the teaching."

—*A. H. Dixon, Assistant Superintendent of Public Instruction, Nebraska.*

"I believe in America because of her ideals, worked out in institutions that are just.

She gives to every man the right to rise;
To take a part in making equal laws;
To hold his neighbor equal to himself;
To speak the truth and to resent a lie;
To serve no man as master, but by toil
To earn the right to call himself a man.

I believe in the world mission of American ideals.
By them, expressed in terms of nations, I believe,
Right can be made to vanquish Force and Fraud.
Justice to reign, sustained by potent laws.
The weaker states to live as live the strong.

I believe in America because she thinks in terms of justice, not of gain, and holds her noble heritage the Right of all."

—*Robert McNutt McElroy.*

Teach the pupils *I Am An American* and *America the Beautiful.* (See *Type Studies of Poems.* Vol....., page——.)

5. Songs. Have the school learn and frequently sing our national hymns and patriotic songs.

6. Practice. Begin with the government nearest to you and to the pupils, which will probably be the school district. Who are the school officials? How and when are they chosen? Who can vote for them? What are their duties? etc. Follow this plan with the city government and the county government.

What State officers are elected by the people? Study the method of electing the officers. How do voters register? Why are they required to register? Organize the school into an election district and conduct a mock election, seeing that all the requirements of a regular election are met.

Who is the Congressman from your district? Who are the United States Senators from your state? How and when were they elected? What are their duties?

Study the diagram here given and compare it with the outline of United States Government in the chapter on Civics. Lead the pupils to understand the plan of organization of our government.

Discuss the organization and purpose of political parties. (See Political Parties.) What are the leading political parties? What principles does each represent?

Whenever practicable organize a club in the district for the study of civics. Many women will welcome such a movement, because they are anxious to learn more about the practical workings of the government. Women's clubs and other civic organizations are usually willing to cooperate with teachers in this work. These study clubs are very important in localities having a foreign population.

Naturalization

Immigrants should be encouraged to become American citizens, and doubtless many hesitate because they do not know what is required of them, or what steps to take. Often, when the children are taught these steps in school, they explain them to the parents and help to remove the barrier that has kept the father from declaring his intention to become a citizen, or taking out his first papers.

Lessons on naturalization should be given in every school, for every American should be able to explain to an alien, how he may become a citizen. The require-

ments will be found in the articles *Naturalization* and *Alien* in the body of the work, but the successive steps are given here for the convenience of the teacher.

An alien, white or of African nativity of descent, must, if he desires to become a citizen of the United States:

1. Go before United States District Court or county court of record, having jurisdiction in the district where he lives, and declare his intention to become a citizen of the United States. This declaration can be made at any time after the alien is eighteen years of age, and it must contain the following information:

Name in full.

Age and occupation.

Time and place of arrival in the United States.

It must also show that it is the declarent's intention to become a *bona fide* citizen of the United States and to renounce all allegience and fidelity to any foreign prince, potentate, state or sovereignty, and particularly to the one of which he may at the time be a citizen or subject.

The clerk of the court will give him a certificate of declaration, called the first paper, for which he pays one dollar. This certificate is good for seven years and it should be carefully preserved for future use.

2. In not less than two years after he has filed his declaration of intention, and after not less than five years continuous residence in the United States, he may file a Petition for Naturalization in any court having jurisdiction over the place where he resides, provided he has lived at least one year continuously, immediately prior to filing of such petition in the State or Territory in which the place is located.

This petition must be signed by the petitioner in his own handwriting and must contain the following facts:

Name in full.

Residence, including number and name of street, city or town, county and state.

Occupation.

Date and place of the petitioner's birth, and the last foreign place where he lived.

Place from which he embarked for the United States and the date; the name of the ship, the line to which it belonged, and the date and place of arrival in the United States.

The petitioner's height, weight, etc., at the time; his occupation and the name of the place to which he was going.

The names of those who came with the petitioner and the places to which they were going should also be given.

The date and place of his taking out his declaration of intention must be given. If married, the petitioner must give his wife's name, the place of her birth, and state where she now lives. If there are children, the name, date and place of birth of each and the place where each lives now must be given. The petitioner must also state to what country he belongs; whether or not he can speak the English language; when he began to live in the United States and in the state in which his petition is offered, and whether he has previously made petition for United States citizenship. If so, the date and place and the cause of refusal must be given.

The petition must also state that the petitioner is not a disbeliever in or opposed to organized government; that he is not a member of or affiliated with any organization or body of persons teaching disbelief in or opposed to organized government; that he is not a polygamist or a believer in the practice of polygamy; that he absolutely and forever renounces all allegience and fidelity to any foreign country of which he may at the time be a citizen or subject.

When the petition is filed it must be verified by affidavits of two credible witnesses, who are citizens of the United States.

These witnesses must declare under oath that:

They have known the petitioner during his entire residence in the state in which his petition is filed, and that this residence has not been less than one year immediately preceding the filing of the petition.

That they have known him to be a resident of the United States continuously during the five years immediately preceding the filing of his petition.

That during this time he has acted as a man of good moral character.

That he is attached to the principles of the Constitution of the United States and that he is well disposed towards the good order and happiness of the same.

The court will then issue a Petition for Naturalization for which the petitioner pays four dollars.

In not less than ninety days after issuing the Petition for Naturalization and not less than thirty days before a general election, the petitioner may be notified by the court to appear for examination. He should be accompanied by the witnesses whose affidavits were filed with his petition. He will be examined in open court on his knowledge of the Constitution of the United States, his knowledge of the government of the state and city or town in which he resides, and his ability to read and write the English language.

If this examination is satisfactory, a Certificate of Naturalization is issued and the alien becomes an American citizen.

(For the Status of the wife and children of a naturalized citizen see the article *Naturalization.*)

Porto Ricans, Filipinos and foreign-born men who served in the army or navy of the United States during the World War and were honorably discharged, may present their Petition for Naturalization without taking out a Declaration of Intention.

The following classes of persons are denied naturalization:

1. Chinese, Japanese, Koreans and Hindoos.
2. Persons opposed to the Constitution of the United States.
3. Anarchists.
4. Criminals.
5. Polygamists.
6. Persons belonging to any organization or association that teaches disbelief in organized government.
7. Persons of questionable moral character.
8. Persons not correctly informed about the government of the United States.

Books for Teachers.

Government Publications. The following publications can be obtained by writing the Bureau of Education, Washington, D. C. In writing, both the number of the bulletin and its title should be given.

Teaching English to Aliens.....Winthrop Talbot
Bulletin 1917, Number 39. This bulletin contains a carefully selected list of books for teaching English to foreigners.

Teaching English to Foreign Born.....Henry H. Goldberger

Community Americanization, Fred Clayton Butler.....Bulletin 1919, Number 80

An Outline Course in Citizenship, Bulletin 1919, Number 76,
Bureau of Naturalization, Washington, D C.

BOOKS FOR THE SCHOOL LIBRARY.

Stories of Great Americans for Little Americans.....Baldwin
Old Times in the Colonies.....Alice Morse Earle
Boys of '76.....Coffin
American Hero Stories.....Eva M. Tappan
Our European Ancestors.....Eva M. Tappan
George Washington.....Horace E. Scudder
Benjamin Franklin.....Charles W. Moores
Stories of Patriotism.....Deming and Barnes
Our Flag in Verse and Prose.....Schauffler
Ballads of American Bravery.....Scollard
Use Your Government.....Alisa Franc
The New Voter.....Thompson
Americanization and Citizenship.....Webster
Government and Politics in the United States.....Gitteau
Making Americans.....Leighton

PARLIAMENTARY LAW

VALUE. This is the age of organization and in our country the spirit is rife. From the literary society in the rural school to the state legislatures and the Congress of the United States there are all grades of organizations—political, philanthropic, literary, religious and fraternal. Some are voluntary, some are authorized by law, and are composed of duly elected representatives, and others are secret orders. But let the nature of the organization be what it may, it must be governed by an accepted system of rules, and each member of the organization should be familiar with these rules.

Since women's clubs and other women's organizations are found in practically every community, and since almost everyone belongs to some organization, a knowledge of parliamentary law is of great advantage to all. Moreover, many men have risen to prominent positions in local, state and national life because of their ability to preside over public assemblies.

The boys and girls in our public schools should be taught the general principles of parliamentary law and receive drills in their practical application.

While each organization is governed in a measure by its own rules and regulations, there are certain general principles which govern the procedure of all assemblies. These principles constitute the fundamentals of parliamentary law.

A knowledge of them enables one readily to understand the method of procedure in any assembly. These principles and their application are set forth in the following pages.

ORGANIZING A SOCIETY

TEMPORARY ORGANIZATION. When an organization or a society for some particular purpose is desired, those interested usually call a mass meeting at a specified date and place. At the hour named it is proper for anyone to call this meeting to order, state the purpose of the gathering, propose someone for chairman or call for nominations. When a chairman is elected he should come forward, thank the assembly, and take charge of the meeting. A clerk or secretary should be chosen, and a resolution providing for the organization of a society for the purpose named should be offered. If this resolution is adopted, a committee to draft a constitution and by-laws should be appointed. A committee to nominate officers for the permanent organization should also be appointed, unless the assembly prefer to nominate the officers from the floor. When these committees are selected, the meeting should adjourn to a given date.

PERMANENT ORGANIZATION. At the next meeting the committee on constitution and by-laws should be called on to report. The chairman of the committee should rise, address the chair and be recognized. Then read the constitution, article by article. After the constitution has been read it is declared open for amendment. Following the adoption of any amendments that may be offered, comes the adoption of the constitution as a whole. A recess should then be taken to give the members opportunity to sign it. Thereafter only those who have signed the constitution can vote. Those signing at this time become charter members of the society.

If by-laws have been prepared they should be adopted in the same manner. If a committee on nominations was appointed, the report of that committee is next in order. With the adoption of this report and the election of the officers named, the permanent organization is completed. The permanent officers take the places of the temporary officers, and the society is ready to proceed to the business for which it was organized.

Constitution and By-Laws. The organization should be as simple as possible. Small societies do not usually require a constitution and by-laws, one set of rules which may be given either name, being all that is necessary. The purpose of having both is to place the more general and fundamental matters in the constitution. These are (1) the name and purpose of the organization; (2) conditions of membership; (3) election of officers; (4) meetings; (5) quorum; (6) amendments.

The by-laws deal with dues, the duties of officers, committees, the order of business and other details not properly belonging in the constitution.

The constitution being practically the charter of the society is not as easily amended as the by-laws. It usually requires a three-fourths vote to amend the constitution, and a provision that the amendment be presented in writing a specified time before it is acted upon. A two-thirds vote is usually required to amend the by-laws, but some societies require only a majority vote. A notice of the proposed amendment should be given at the previous meeting.

Rules of Order and Standing Rules. These rules are adopted by a majority vote, and pertain to the conduct of the affairs of the society. They differ from by-laws in that they can be changed by a majority vote and without previous notice. In small societies these rules are seldom necessary.

Officers

The officers of a society are usually a president, vice-president, clerk or secretary and treasurer. In a small society the same person may be secretary and treasurer. These officers are essential to the transaction of the business of the society. Other officers may be provided for in the constitution when the work of the society requires them. For instance, a literary society provides for a critic, and a legislative assembly has a sergeant-at-arms to keep order on the floor.

All officers should be elected by a majority vote of the members present, and voting on each officer.

The Presiding Officer. The presiding officer in most societies has the title of president, but in fraternal organizations a different title is usually applied to him. He should call the meeting to order at the appointed time, and preside during the session. It is his duty to see that the order of business prescribed in the by-laws or rules of the society is followed. He should entertain all motions that are properly presented, state them in their order, and declare the result of the vote upon them. He should enforce order, and preserve decorum in debate, give the floor to the one entitled to it in case of dispute, and decide points of order when they arise.

In connection with the secretary, he should sign warrants on the treasury, contracts made by the society, and important communications to individuals or other organizations. He should also sign the reports of the secretary, when they are approved.

The presiding officer should rise to put a question to vote, although he may state it sitting. A question relating specifically to the presiding officer should not be put to vote by him, but by the secretary or the one making the motion.

The president has the right to speak fully upon points of order, even without leaving his chair, but he should conceal his opinion upon controverted questions. If he desires to discuss any measure before the house, he should call someone to

take the chair while he is speaking. His part in the discussion should usually be confined to an attempt to reconcile opposing factions.

The president has the right to vote, but it is not customary for him to exercise this right except when the vote is by ballot or when there is a tie.

Addressing the Chair. Members should address the president as "Mr. President" or "Madam President." A woman president should be given the latter title whether married or single. In debate or other remarks a member should refer to "the Chair" and the president should refer to himself as "the Chair." In referring to anything done outside the meeting he may speak of himself as "your President" but he should never refer to himself as "I."

Qualifications. While constitutionally any member of an organization may be elected to the office of president, the presiding officer should be chosen with great care for the success of the society depends more upon him than upon any other officer. He should be well informed on parliamentary procedure, impartial and just, and willing to subordinate his opinion to the will of the majority. He must be able to command the respect of the society, and to maintain order. Partiality and lack of discipline will soon disrupt any society.

The duties already mentioned pertain to the meetings of the society, but there are others equally or more important devolving upon the president. As head of the society he usually exerts a greater influence than any other member. The members naturally look to the president to take the lead in planning the work of the society, in furthering its usefulness and in safe-guarding its interests. The presiding officer should be a person of the highest character, and should possess sound judgment and the qualities of a good executive.

The Vice-President. The vice-president takes the place of the president in his absence, and should be qualified to discharge the duties of the presiding officer.

The Secretary. Next to the presiding officer, an efficient secretary is the most essential to the success of the society. A secretary should know how to keep books and how to handle correspondence. The position is one of responsibility, and an ignorant or inefficient secretary will hinder the progress of the society and may cause it to disband.

The duties of the secretary are:

To keep a record of all meetings.

To read all papers ordered to be read.

To call the roll of members.

To keep the books and papers of the society.

To prepare a program of the meeting for the chair (unless there is a program committee).

To keep a list of all standing and special committees.

To deliver to each chairman of a committee a list of its members, with the papers, if any, referred to it.

To indorse reports with the date of their reception.

To attend to the correspondence of the society (unless there is a corrsponding secretary).

The Minutes. The minutes are a record of the meetings of the society. They should begin with a statement of the time and place and the kind of meeting—regular, special, adjourned—and should state that the meeting was called to order by the president or otherwise and that the minutes of the preceding meeting were read and approved. If the president or secretary are absent the fact should be stated, and the persons occupying these respective positions should be named. If the reading of the minutes of the previous meeting was omitted this fact should also be stated. In Legislative bodies a record of the members present is usually required. But this is not necessary in voluntary societies.

Custom varies in determining what the body of the minutes should contain, but the leading principle is that only what is done should be entered. Every motion voted on should be recorded with the result of the vote. Generally it is not necessary to enter debates, or measures proposed but not acted on.

The Treasurer. Usually the duties of the treasurer consist in receiving and caring for the money of the society, and paying it out on warrants signed by the president and secretary. He should make reports at stated intervals showing the balance on hand at the last report, the amount received and from what sources; the amount paid out and for what purposes, and the balance on hand. When a large number of items have been handled, it is customary to read a summary of the report and attach the itemized statement to it.

Meetings

Regular Meetings. Regular meetings are those provided for in the constitution. In some societies they are called *stated* meetings. At these meetings the regular business of the society is transacted. The order of business is usually prescribed in the by-laws. If this is not done the following order is the one generally adopted:

1. Reading and approval of the minutes.
2. Special order of the day.
3. Reports of standing committees.
4. Reports of special committees.
5. Unfinished business.
6. New business.

The regular order of business may be set aside or changed for any meeting by a two-thirds vote.

Other Meetings. When the business at a regular meeting cannot be completed, this meeting may adjourn to the call of the chair or to a date named in the motion to adjourn. At the adjourned meeting the business can be taken up and finished. If, however, the regular meeting adjourns without providing for another meeting, the measure fails. Special meetings may be called as provided in the constitution or by-laws whenever they seem necessary. A special meeting is called for some particular purpose, and, unless the call so specifies, other matters cannot be considered.

Quorum. A quorum is the smallest number of members that can transact business at a meeting of the society. Unless the constitution or by-laws provide for a smaller number, a majority of the members constitute a quorum.

Motions

Introduction of Business. Routine business, such as reports of the secretary and standing committees, may be introduced by the chair without the formality of a motion unless there is objection. All other business is regularly introduced by a motion. A member desiring to make a motion should rise and address the chair. The chair recognizes him by speaking his name, and he is then entitled to offer his motion. When he is seated some other member should second the motion, which he may do without rising or addressing the chair. The chair then places the motion before the house by saying, "It is moved and seconded" (stating the motion). He should then ask, "Is there anything to be said upon the question?" If there is no discussion the motion should be voted upon at once.

The chair should wait a reasonable time for a second to a motion. If none is made he may second the motion himself and state it. If no second is offered, the motion fails. Before a motion is stated by the chair the mover may alter it. Should

he do so the seconder has the prvilege of withdrawing his second. After the motion has been stated by the chair, it constitutes the business before the society and must be disposed of by vote. During the procedure it is usually referred to as the "Question" or the "Main Question." Long and complex motions should be submitted in writing. If a motion includes more than one important measure it should be divided and each measure voted on separately.

Classes of Motions. There are four classes of motions.

1. *The Principal Motion* or main question which constitutes the business submitted to the society.

2. *Subsidiary Motions.* Used to dispose of other motions. They are:

To lay on the table.
Previous question.
Postpone to a certain time.
Commit, refer, or recommit.
Amend.
Postpone indefinitely.

3. *Incidental Questions,* or those that arise from other questions, as:

Appeal.
Question of order.
Reading papers.
Leave to withdraw a motion.
Suspension of rules.

4. *Privileged Questions,* such as:

Fix the time to which to adjourn.
Adjourn.
Take a recess.
Questions of privilege.
Call for orders of the day.

Questions of priivlege, call for the orders of the day and objection to the consideration of a question are practically confined to legislative assemblies.

Precedence of Motions. Classes 2, 3 and 4 are used merely for the purpose of enabling societies properly to dispose of measures coming before them; or to dispose of the principal motion. They must therefore be considered before the principal motion can be voted upon, although they are made after that motion. Beginning at the top of the foregoing list, each motion takes precedence of all below it.

Illustration. A literary society has before it a motion instructing the secretary to purchase a record book at an expense not exceeding $3.00. This is the principal motion or main question. A member moves to amend the motion by changing the amount to $2.00; another member moves to refer the matter to a committee consisting of the president, secretary and treasurer. A third member, thinking that there is no immediate need of a new record book, moves that the motion be laid on the table. A fourth member, perceiving that the hour is getting late, moves that the society adjourn.

There are now five motions before the society. In what order shall they be considered? The motion to adjourn is of the highest rank and must be voted on first. If this motion fails, the next in rank is the motion to lay on the table. If this fails, the question to refer the matter to a committee must be considered. Following this is the amendment; if the amendment carries, the principal motion is voted on as amended. If the amendment fails, the principal motion is voted on as it was made.

Suggestions. The precedence of motions is the most confusing problem that confronts a presiding officer. The following suggestions may be found helpful:

1. Only one principal motion can be before the society at a time. A motion **not** designed to aid in the disposal of the principal motion is out of order.

2. In disposing of a number of subsidiary motions, they should be considered in the reverse order in which they have been made. A study of the illustration will make this plain. The motion *to adjourn* was voted on first. If this motion is carried, all other motions fail because the meeting comes to an end. The next motion to *lay on the table,* if carried, disposes of the measure for that session. The motion to *refer to a committee* disposes of the main question, but in a different manner than the mover intended. If this motion fails the amendment raises the question of the amount that should be expended. Should the amendment be carried, then the principal motion with the amount changed from $3 to $2 will be voted on.

Motions Out of Order. The chair cannot entertain motions that are out of order. A motion is out of order:

1. When it conflicts with the constitution and by-laws of the society.
2. When it calls for the performance of an illegal act. For instance, a motion instructing a society that is not incorporated to begin a suit at law against another organization or an individual would be out of order because an unincorporated society cannot sue or be sued.
3. When it does not relate to the disposal of the principal motion.

Motions Not Debatable. The following motions are not debatable:

To adjourn.
To call to order.
To close debate.
To extend the limits of debate.
To lay on the table.
To limit debate.
To suspend the rules.
To take from the table.
To withdraw a motion.
Previous question, which is a motion to stop debate.

Amendments. The purpose of amending a motion, is to make it conform more nearly to the wishes of the society. The amendment must relate to the motion. Amendments may be made by changing certain words or phrases, by inserting words, by striking out words, by striking out words and inserting others in their place. Subsidiary motions, except those that are not debatable, can be amended.

An amendment to an amendment can be made, but an amendment to this amendment is not allowable.

Committees

Purpose. Many matters brought before a society require investigation. In literary societies the programs should be prepared in advance. In some organizations financial matters require careful consideration, and so on. Such measures are usually referred to a committee consisting of three or five members, who are appointed by the chair or nominated and elected by the society. Each committee should choose one of its members for chairman, unless the chairman is provided for in the constitution or by-laws, and some committees need a secretary.

Standing Committees. Standing Committees are those provided for in the constitution or by-laws, and they hold office for the time specified in the article creating them. Committees on finance, rules and programs are good illustrations. These committees usually report at each regular meeting of the society.

Special Committees. Special committees are appointed for the consideration of such measures as do not regularly come before any of the standing committees. When the report of such committee is accepted, the committee is discharged.

COMMITTEE REPORTS. All important reports should be submitted in writing and become a part of the records of the society. Verbal reports are sufficient for unimportant matters.

VOTING

METHODS. The following methods of voting are in general use:

Acclamation or raising of hands.
Rising vote.
Ballot.
Yeas and Nays.

Acclamation is the method most generally used. When putting a question to vote by this method the chair states the question and says: "All in favor of the motion will say *aye;* all opposed, *no.*" In secret societies and religious bodies the vote is usually by the raising of hands. In announcing the result, the chair says, "The aye's have it and the motion is carried; or the no's have it and the motion is lost."

When a rising vote is called for the chair asks all in favor of the motion to stand and be counted, then all opposed to stand. In small bodies the presiding officer and secretary may make the count, but in large bodies, tellers are usually appointed. The chair announces the number voting in each side and declares the measure carried or lost, as the case may be.

When voting is by ballot, the ballots are counted by tellers, who hand their report to the secretary, or the chair. The result should be stated as follows:

Total number of votes cast . . . . . ; Necessary for choice . . . . . ; A. B. having received . . . . . votes is elected.

An aye and nay vote is seldom used outside legislative assemblies. It has a two-fold purpose—to secure an exact vote on a measure and to place the vote of the members on record. The vote is by roll call and each member's vote is recorded by the clerk when it is given. At the close of the roll call, the clerk reads the names of those voting *aye*, then the names of those voting *nay*. Errors may be corrected and any member can change his vote before the result is announced.

MAJORITY AND PLURALITY. In assemblies most questions are decided on a majority vote. The constitution and by-laws of a society generally require a two-thirds vote:

To suspend the rules of order.
To make a special order.
To amend the by-laws.
To extend the limits of debate.
To close debate (previous question).
To object to the consideration of a question.

When a candidate receives more votes than any other person he is said to receive a plurality. Election by plurality is not allowed in assembles, except by a special order when it may be resorted to for breaking a deadlock. It is applied to elections for city, county and state officers, and for members of both branches of Congress.

CONDUCTING DEBATES

ORDER OF DEBATE. A debate is the discussion of a question before the society. It may be a question pertaining to the work or the welfare of the society or a question constituting a part of the program, as is usually the case in literary societies. In the first instance the member who proposes the measure or the chairman of the committee making the report is entitled to be heard first. He is also entitled to close the debate. Other speakers are heard in the order in which they

are recognized by the chair. Every member is entitled to take part in the discussion, but no member should speak twice until all who wish to speak have been heard. In his second speech the member should confine his remarks to an explanation of what he said in his first speech.

In set debates in literary societies a certain number of speakers are chosen for each side. The debate is opened by the first speaker on the affirmative. The remaining speakers alternate and the debate is closed by the first speaker on the affirmative. But in his closing speech this speaker should confine himself to summing up the arguments presented.

The time allowed each speaker is fixed by the rules of the society, and it is the duty of the chair to call the speaker to order at the expiration of his time. Some societies throw the question open for a general discussion for a few minutes following the presentation of the argument by the regular speakers. Volunteer speakers are usually limited to two or three minutes, and the closing of the debate by the first speaker on the affirmative follows the voluntary discussion.

Rules of Debate. In all debates it is customary to observe the following rules:

1. *Observing Proper Decorum.* The speaker must confine himself to the question before the house. He must refrain from objectionable language, and avoid "personalities" and remarks reflecting upon the past action of the society.

2 *Use of Terms.* Reference to the presiding officer should be to the Chair. The speaker should refer to anyone opposed to him in the discussion or his "opponent" and to one on the same side of the question as himself as his "colleague."

3. *Interruptions.* A speaker having the floor should not be interrupted unless he violates the rules. A member may then rise to a point of order unless the chair calls the speaker to order. When the speaker's right to continue is questioned, he should be seated until the chair decides the point of order. If the decision is in his favor he can then resume his argument.

4. *Yielding the Floor.* When a member yields the floor in the interest of the society, he is entitled to resume his argument on the disposal of the question to which he yielded. In organizations which hold regular sessions from day to day, a speaker may yield to the question of adjournment and resume his argument at the beginning of the next session. In voluntary societies, however, this practice is not followed.

BUSINESS ECONOMICS

I. The Parties Engaged in Business.

1. The **employer,** who usually furnishes the capital.
2. The **employe,** who usually furnishes the labor.
3. The **general public,** which usually consumes the product.

It should be remembered that often the employer works just as hard as the employe; that the employe frequently supplies part of the capital; and that the term "general public" embraces all citizens—young and old, male and female, who therefore have a rightful interest in every enterprise. (See "Foundation for Promotion of Industrial Peace.")

II. Parties Who May Conduct Business.

1. The **private individual.**
2. The **partnership** or **firm.**
   a. The general partnership, unconditioned.
   b. The limited partnership, having agreed conditions.
3. The **corporation.**
   a. The business corporation, designed to carry on some mercantile, manufacturing, mining, or other enterprise.
   b. The municipal corporation, to manage the affairs of a city, etc.
   c. The educational corporation, to handle some form of instruction or training.
   d. The charitable corporation, to care for some charity.
   e. The religious corporation, to foster some church organization or interest.
   f. The insurance corporation, to protect life or property or to provide for a beneficiary.
   g. Miscellaneous incorporations.
4. The **agent** or representative.
   a. The general agent, having the power of the principal.
   b. The special agent, having limited authority.
5. The **executor** or **administrator.**
   a. Executor, appointed by will, usually under bond.
   b. The administrator, appointed by some court, gives bond.

Note—Each is to handle the estate of a deceased person, and the duties and liabilities are usually fixed by statute.

6. The **guardian.**
   The guardian is given a naked power, without personal interest, to execute some trust for the benefit of another party, termed a ward.
7. The **receiver in bankruptcy.**
   The receiver's duties and liabilities are usually fixed by the court which appoints him.
8. A **nation, state,** or **tribe.**
   With or without limitation by a constitution, a nation, state, or tribe has authority to conduct its own business.

III. Different Kinds of Business.

1. **Commerce**, or buying and selling goods or some other product.
2. **Farming**, or raising crops by cultivation.
3. **Lumbering**, or making timber out of trees.
4. **Manufacturing**, or turning out articles for use (usually from the crude material).
5. **Mining**, or getting ores, metals, or precious stones from the ground.
6. **Publishing**, or the making of books, papers, etc.
7. **Teaching**, or training the young for the duties of life.
8. **Railroading**, or transporting persons or freight from one point to another by means of cars.
9. **Navigation**, or transporting passengers or freight by means of ships, boats, etc.

BUSINESS LAW

I. The Contract, The Patent, The Copyright, The Trademark

1. **The contract** or agreement is the compact between parties to a negotiation or business undertaking.

Certain elements are vital to it.

a. Conditions of enforcement.

(1) The contract may be oral or written.
(2) The agreement must be mutual.
(3) The parties must be competent to make a contract.
(4) The thing to be done or not to be done should be clearly stated.
(5) There should be a substantial consideration.
(6) The consideration must be legal.
(Damage to be done another, performance of a fraudulent or immoral act, impossibilities, etc., are usually held not subject to contract.)
(7) A time must usually be named for the performance of a contract.

b. Kinds of contracts.

(1) *Oral contract,* made by spoken words.
(2) *Written contract,* whose terms are in writing or print.
(3) *Implied contract,* whose interpretation, in case of a dispute, is made by a court or jury.
(4) *Express contract,* whose terms and limitations are expressly set forth.
(5) *Joint contract,* in which all the parties agree to support the terms of the contract.
(6) *Several contract,* in which each party agrees to be bound by all the terms.
(7) *Executory contract,* or one that stipulates something to be done at a future date.
(8) *Conditional contract,* the execution of which is dependent upon certain circumstances.
(9) *Executed contract,* or one whose conditions have been carried out.

c. The execution of a contract is dependent upon certain elements, the more important of which are given below.

(1) The thing sold must exist or be capable of delivery.
(2) The law gives damages, but does not enforce performance.
(3) A court of equity may enforce performance.
(4) Fraud rescinds a contract.
(5) One side alone cannot terminate a contract.

(6) Unless specifically stated otherwise, the *law of place where made* holds.
(7) A contract made by a minor is voidable but not necessarily void.
(8) A contract of a competent person with a minor is enforcible as to the competent party.
(9) Idiotic, insane, and stupidly drunk persons, as well as persons under duress, or belonging to a country at war with one's native country, are usually held not competent to make a contract.
(10) Performance of the thing agreed is necessary to the enforcement of a contract.
  (a) Voluntarily leaving work unfinished, or quitting employment before the term has expired, forfeits pay for the time served.
  (b) Dismissal without good cause does not forfeit any part of the wages agreed to be paid.
  (c) Sickness or injury may give a legal right to pay for the time served. If due to the neglect of the employer, it may form a basis for a claim of damages.
(11) A seller has the right, under certain conditions, to stop goods in transit.
(12) Warranty at the time of a sale, by principal or authorized agent, direct or implied, is binding.
(13) Insolvency, false pretence, the bucketing of stocks, a withdrawal before acceptance, or failure to execute within a time specified, may all be pleaded as a legal reason for not executing a contract.
(14) Exceeding his instructions on the part of a special agent relieves the principal of liability.
(15) The requirements of a lease are limited by the statutes or by equity.
(16) A contract may be limited or terminated by conditions within itself.

MODEL FOR A CONTRACT

John Doe, of (*place of residence, business, or profession*), and Richard Roe, of (*place of residence, business, or profession*), have agreed together, at (*place*), on (*the day should always be named*), and do hereby promise and agree to and with each other, binding themselves and their assigns or heirs, as follows:

John Doe, in consideration of the promises hereinafter made by Richard Roe and of (*here insert any other consideration which John Doe has*), agrees and promises to and with Richard Roe, that (*here state explicitly, in accordance with the suggestions contained above, the whole of what John Doe agrees to do*).

Richard Roe, in consideration of the promises and agreements of John Doe as stated herein, and in consideration of (*here insert any other considerations which Richard Roe has, if any*), hereby agrees and promises to and with John Doe, that (*here state explicitly the whole of what Richard Roe agrees to do*).

Witness our hands to copies of this agreement, made this (*date*) day of (*month*), (*year*).

Witness:
(*Richard Brown.*)
(*Thomas Mullen.*)

JOHN DOE.
RICHARD ROE.

2. The Patent.

a. Protects the inventor or discoverer for seventeen years.
b. May be secured by a written application to the Commissioner of Patents from the inventor or discoverer, accompanied by a model of the invention or a full description of the new art, etc.

c. The new article must not have been sold, patented, or publicly described in the United States for two years prior to the application.
d. The lawful fees ($15 for filing application, $20 for the patent) must be paid in advance. A joint patent may be issued.
e. The party applying for a patent must show the principle of operation, the usefulness of the article, the improvement claimed, etc., and the application must have two witnesses.
f. A caveat as notice of claim or to secure time to complete an article, etc., copies of patents, designs, etc., and records of assignments, may be secured on payment of the regular fee.
g. A patent may be legally assigned.

3. **The Copyright.**

a. Protects the owner 28 years; may be reissued for 14 years.
b. May be secured by author, inventor, designer, or proprietor. Covers books, charts, maps, compositions (literary, dramatic, musical), photographs and negatives, engravings, cuts, paintings, chromos, models, designs. It may be assigned.
c. A printed title-page or other evidence of title is required to be filed in Washington, D. C.
d. Two complete and perfect copies must be mailed to the Librarian of Congress on or before the day the article appears; also a copy of any revised issue.

4. The **Trade Mark,** or established **Business Name,** is protected by law.
5. For the laws governing **Power of Attorney** see the statutes of the several states.

BUSINESS ART

I. Advertising, Soliciting, Business Correspondence

Within the limitations and purposes of this volume it is impossible to give more than a few facts and special suggestions under each head. These will all be found very helpful and rich in suggestion to every business man, especially in connection with articles found elsewhere in this series.

1. Advertising.

a. Kinds of advertising.

(1) Newspaper. (Determined by the purpose.)
- General (abroad).
- Local (at home).
- Display (large, showy).
- Classified (brief).

(2) Window Dressing. (To draw attention and awaken desire.)
- Size of window, large.
- Background, appropriate.
- Colors, study light effects.
- Method, attract the buyer.
- Display, limited in number of articles.
- Novelty, requires change.

(3) Signs.
- Permanent, study material.
- Temporary, always neat.
  - Printed.
  - Painted.
  - Electric.
    - Letters plain.
    - Style concise.
    - Not overcrowded.
    - Attractive.

(4) MISCELLANEOUS.
(Demonstration, circularizing, sampling, etc.) Depends upon place and purpose.

b. Mediums used.
(1) The local newspaper, for home trade.
(2) The general newspaper, for trade at large.
(3) The special publication.
(4) The billboard.
(5) The street cars.
(6) Literature—
- Letters.
- Circulars.
- "Cuts."
- Catalogues.

Not offensive. Tasteful. Comprehensive. Creditable. Catchy.

c. Purposes in view.
(1) To make a sale.
(2) To keep before the public.
(3) To learn the value of a medium.
(4) To find the best method, i. e., the best selling points, and how best presented.
(5) To make or create a want without seeming to do so.

d. Cost to the business.
(1) What part of the fixed charges.
(2) Immediate results; their character.
(3) Ultimate results.
(4) Effect on, of type used.
(5) How affected by illustrations.
(6) Where and how recorded.

2. Soliciting.

a. The regular customer must be cared for but not annoyed.
b. The probable customer, or "prospect," should be studied before being approached.
c. The doubtful "prospect" should be strengthened wherein he is hesitating.
d. The best method depends upon conditions, the object (insurance, subscription, advertising), etc.
e. A systematic record should be kept.

3. Business Correspondence.

This has now become a great art. So many are the ways in which business correspondence is used, and so important has the right conduct of its correspondence become—not alone to growing concerns but to well-established firms and corporations—that an efficient correspondent commands a large salary. Special schools for the training of correspondents have been established, and numerous books on the subject have been published.

a. Objects in view.
(1) To secure business in the best way by attracting custom and avoiding the assumption of interest in the customer.
(2) To secure business advantageously by making it to the customer's interest to deal with the house.
(3) To retain business already secured.
(4) To collect money due.
(5) To handle complaints.
(6) To deal with a branch house or with an agent.

b. Elements of a good business letter.

(1) Its *make-up* should show good stationery, an attractively printed letter-head, correct spelling and capitalization, neat and not blurred typography, proper paragraphing, and short, concise sentences.

(2) In its *method of expression,* the business letter gives careful thought to the following points:

(a) A distinct tone, characteristic of the firm sending out the letter.

(b) The right manner for the party to whom the letter is to go.

(c) Avoidance of a patronizing tone.

(d) A bright, pertinent, but tactful method of attracting the attention of the recipient and of making him seem to discover more merit in the article than the writer thought of.

(e) Originality, variety, ingenuity—but all so well thought out and so skillfully expressed that the reader does not realize that he is being influenced.

(f) Nothing that will antagonize the receiver of the letter so that he don't care whether he ever answers it or not.

(g) Studious courtesy, but avoidance of fawning or flattery.

(h) Avoidance of such an air or tone of criticism as puts the recipient on the defensive or as leaves a sting.

(i) Such a way of putting things that the recipient feels he is neglecting his own interests or his duty if he does not do the thing suggested in the letter.

(3) In its *content,* or subject matter, a good business letter keeps the following points in mind:

(a) What the writer wants to say.

(b) What the writer wants the reader or recipient to know.

(c) What the writer desires the reader to think and to want.

(d) What the reader ought to know. (This involves the art of concealing without appearing to conceal. It also involves the art of using technical expressions when they give force and clearness; and of avoiding them when they will confuse the mind of the party receiving the letter. It further involves the art of simplicity without offence.)

(e) The use of good, clear, forcible English. Stale expressions, cut-and-dried terms, lack of earnestness, want of sincerity, are all to be studiously avoided. Saying the thing to be said clearly, then quitting, is the highest letter-writing art.

(f) Never losing sight of the main things—that the letter is an argument; that it is an argument to a person at a distance and not a conversation with a person at hand; that the communication has a definite purpose; that it should practically force a reply; and that the customer should be brought to your way of thinking without feeling that he is "knuckling under."

(g) That the correspondent should follow the instruction of the Irish sergeant to the raw recruit: "Step out here and look at yourself." He should review his own letters; look for his weak points; see how he can improve upon the letters of others or get valuable suggestions from them; and be alive, growing, getting stronger.

(4) The *length* of a business letter is so dependent upon conditions that it is difficult to give rules governing it. The whole art here is involved in this—make the letter long enough to say what it ought to say, then quit. The laws of the human mind should be kept in view—attention, interest, desire, action.

(5) The *collection letter* has a distinct purpose in view. It should never lose sight of that fact. Its object is to get money that is due. The things to be kept in mind are:

(a) That the debtor shows an unwillingness to pay what he owes.
(b) That he is trying to avoid immediate payment—possibly payment altogether.
(c) That this may be the result of bad business training only—may, in fact, be partly the fault of the house that he owes.
(d) That his friendship and his custom may be desirable; or,
(e) That the account is one on which to get the money, and to get it quickly.

Whether to be deliberate, sympathetic, or emphatic in a collection letter is something that common sense and circumstances must decide.

(6) Letters handling *complaints*. These should have the following features:

(a) A conciliatory tone.
(b) A clear understanding of the trouble.
(c) A willingness to recognize the other fellow's way of looking at the trouble.
(d) A disposition to do the fair thing—not just to gain an advantage.
(e) A method of showing a customer wherein he is wrong (if he is wrong) without antagonizing him. This requires diplomacy.
(f) Such immediate action as quiets the complainant and makes him feel that he is receiving respectful attention.

(7) *Preserving correspondence* and its contents.

(a) The letter file, its form and index.
(b) The card system of recording contents.
(c) The classification.
(d) The distribution.
(e) The follow-up.
(f) The study for suggestions.

INVESTMENTS

I. Corporations, Bonds, Stocks, Notes, Mortgage, Real Estate

An investment is the exchange of money or other property for bonds, stocks, goods, real estate, or other security supposed to be profitable. It is generally made with the desire to secure a regular or larger income. An investment may be considered from several standpoints:

1. The party issuing the security.
2. The character of the security.
3. The purpose of the investor.
4. The choice of an investment.

It is important that a clear distinction be made between a *regular investment* and *a speculative investment*. In the former the first consideration is safety of principa

and interest or dividend, the amount or rate of income being subordinate; in the latter more or less risk is assumed for the purpose of securing a larger return upon the sum invested. We will now consider the investment in itself.

II. The Party Issuing the Security

1. The Corporation.

a. Definition—an association of persons authorized by law to transact business.

b. Purpose—a combination of capital and effort.

c. Origin—a charter, defining its composition, object, and limitations, granted by the state.

d. Kinds—business, municipal, charitable, educational, religious, patriotic, etc.

e. Liability. This varies according to the nature of the corporation and the law of the state issuing the charter. In a *limited corporation* the stockholders are not liable to the corporation's creditors beyond the amount which they have paid or agreed to pay for their holdings. In an *unlimited corporation* the stockholders may be assessed for the company's debts to the amount of the difference between what they have paid and the par value of their holdings—or even more. (See National Banking Law.) The corporation itself is liable for agreements made by itself or by its duly authorized agents, for violations of the law, etc. Its directors may be held liable for fraud, for negligence of duty, for violation of the provisions of their charter, etc.

f. Application for a charter. The charter must be applied for by individuals. They must be legally competent to conduct business. They must be at least three in number. In some cases they must be citizens. The application must contain the proposed name, location, objects, capital, par value, duration, amounts subscribed, by whom, at what address, and any other feature specified by law. (In some instances a corporation is authorized by a general law.)

g. Powers. These are usually regulated by statute. In general, a corporation is authorized: to make agreements or contracts; to issue stock or bonds (or both); to have a corporate seal; to take whatever steps may be necessary to carry on its business; to sell, buy, or hold property (it is sometimes forbidden to own stock in a competing corporation or to hold certain real estate); and to dissolve.

h. It offers for investment common stock, preferred stock, cumulative preferred stock, or bonds.

i. Corporations are subject to state or national control and supervision (or both).

2. Building and Loan Associations.

a. Are usually incorporated.

b. Purpose—to raise funds by mutual subscription to be loaned members (generally upon mortgage) so they may buy real estate. Sometimes the company buys property to sell to its members.

c. Kinds—terminating or permanent. A *terminating* association ends at a fixed date or upon the accomplishment of a specified purpose. A *permanent* association is limited in time only by its charter or by the law.

d. Aim—to assist members to secure homes who could not otherwise pay for them.

e. Investments offered—loans and mortgages.

3. **The Real Estate Dealer.**

a. May be an individual, a partnership, or a corporation.
b. Handles improved and unimproved city or town property, farm lands, mortgages, and leases.
c. See "Contract," "Liability of Agent," "Corporation," etc.

III. Character of Securities

1. **Kinds.**

One may invest in a bond, a stock, a mortgage, a lease, a piece of real estate, merchandise of some kind, a note, etc. A regular investment is made for the purpose of securing income or ultimate profit. A speculative investment is entered into with the chance assumed of sale at a handsome profit or of loss.

2 **Bonds.**

a. A bond is a lien or debt of a corporation.
b. It promises to pay both principal and interest. A consideration need not be named.
c. It should have the seal of the corporation and the signature of the authorized officials.
d. It is generally protected by a mortgage in the hands of a third party as trustee.
e. Its obligation is usually limited by the condition or conditions named in the bond.
f. Ownership may be determined by possession if the bond is not registered, or by proof.
g. Kinds. Bonds may be classified from different points of view.
(1) A *registered bond*—one entered in the owner's name.
(2) An *unregistered bond*—one whose ownership passes by possession.
(3) A *gold bond*—one whose principal and interest are payable in gold of standard weight and fineness.
(4) A *coupon bond*—one having detachable slips showing the amount of interest due on a given date.
(5) *Government, state, municipal bond*—one issued by party named under authority of law.
(6) A *tax bond*—one receivable for taxes.
(7) *"A," "B," "C,"* or "1," "2," "3," bonds—bonds issued in series so described.
(8) *Serial bond*—one payable in a regular series.
(9) *Refunding bond*—one issued to take up a preceding debt.
(10) *Called bond*—one called for payment and on which interest ceases after a certain date.
(11) *Divisional bond*—one protected by a certain part of a property.
(12) *Extension bond*—one secured by additions built or bought with the proceeds.
(13) *Blanket bond*—a consolidated bond on all the property.
(14) *Debenture bond*—one whose interest is payable after meeting fixed charges and running expenses.
(15) *Terminal bond*—one issued to pay for terminal facilities.
(16) *Guaranteed bond*—one whose payment is guaranteed by some other party.
(17) *Plain bond*—one not protected by mortgage, sinking fund, or collateral security.
(18) *Collateral trust bond*—one protected by securities of another company.

3. Stock.

A bond owner is different from a stockholder. The former has a lien upon the property of the corporation, is not liable for its debts, and has a claim for principal and interest, enforceable in law, whether the company is making money or not. He is entitled, however, only to the interest as it falls due and to the principal at the end of the time for which the bond is issued. While the stockholder is a partner in the business and has certain liabilities, he is entitled to share in all the profits and in the entire assets (unless otherwise provided in articles of incorporation).

a. *Amount*—is fixed by the charter of the corporation.

b. *Par value*—is discretionary if not fixed by the charter.

c. *Paid stock.* This is stock for which an equivalent is supposed to have been delivered to the company. (Some states require all the stock to be paid for before the charter is issued.) It may be paid for in money, in certain rights transferred, in property, in services, etc.

d. *Common stock*—general stock issued without special privileges.

e. *Preferred stock*—stock entitled to a certain part of the profits before anything is allotted to the common stock. It may also have a first claim upon the assets of the company.

f. *Cumulative preferred stock*—preferred stock on which an unpaid dividend accumulates and has a claim upon future earnings prior to that of the common stock.

g. *Promotion stock*—shares allotted to or taken by the promoter for his services.

h. *Pooled stock*—shares not negotiable or not transferable until after a certain date.

i. *Non-assessable stock*—shares which cannot be legally assessed by the company or its creditors.

j. *Treasury stock*—variously defined. Usually it is stock belonging to the company and whose price goes into the treasury for company purposes (as distinguished from promotion stock, for example).

k. *Watered stock*—shares nominally paid for and which pretend to represent money or its equivalent paid to the corporation but which represent a fictitious value.

l. *Stock subscription*—an agreement to take a definite number of shares of stock at an agreed price and to pay for the same. (A subscriber cannot withdraw after the required amount or number is obtained.)

m. *Stock certificate*—a paper issued by a corporation, under its seal and the signature of the authorized officials, declaring that the ownership of a given number of shares is recorded upon the books of the company in a name written or printed upon the face of the certificate. Upon the back of the certificate is a blank form for its assignment—which assignment should always be witnessed. (A certificate issued to trustees should show the nature of the trust.)

n. *Rights of a stockholder.*

(The preferred stockholder does not always have the same rights and privileges as the common stockholder. For example, he may not be allowed to vote in an election of officers.)

(1) To share in the dividends or profits of the company.

(2) To share in the assets of the company in case of dissolution.

(3) To examine the books and records of the company, but not to interfere in its management except in case of fraud or irregularity (which he may correct by legal procedure).

(4) To take part in stockholders' meetings in person or by written proxy.
(5) To vote his stock, in person or by written proxy, with the voting power assigned to it by the charter or by-laws.
(6) To have his stock transferred promptly in case of sale. Delay may interfere with the sale or cause him a liability.

4. The Mortgage.

A mortgage is a lien upon property to secure a debt. In real estate transactions it is usually called a mortgage deed.

a. It is void when the debt has been paid.
b. It is voidable, in whole or in part, if secured by fraud or misrepresentation.
c. Failure to record a mortgage may lose it precedence or value.
d. Its validity may depend upon strict compliance with the law of the state where the property is located.
e. Unless so stated in the mortgage, the party giving it has no right in the real estate beyond that of paying the debt and redeeming the property. The law usually gives a mortgagor a certain time in which he may redeem his property, under certain conditions, after the mortgage becomes due; and the courts usually allow him to sell his equity or to give a second mortgage (subject to the rights of the holder of the first mortgage. No subsequent mortgage can take these away).
f. The "power of sale" mortgage avoids the redemption provision of the law by containing an agreement that the property may be sold, on terms agreed upon, within a given time after the mortgage falls due if the excess above debt and charges be paid to the mortgagor.
g. Without a specific agreement, the party coming into possession of mortgaged land is entitled to any buildings or other improvements.

5. The Lease.

This is a contract by which a tenant agrees to pay a given price for a specified time for land and that which is on it. In the cities especially it has become a very important feature of barter, trade, or investment.

a. It may be for a single month or for a number of years, the extreme limit usually being 99 years.
b. It may be for 198 years in some states.
c. It is usually partly protected (as is also a mortgage) by insurance on buildings.
d. If not specified in the lease, the time for paying the rent is determined by common usage.
f. Unless provided in the lease, the tenant is not responsible for taxes.

6. The Note.

(See full treatment of this form of investment elsewhere in this article.)

7. Real Estate.

(See "Contract," "Agent," "Mortgage," "Bond," the common law.)

IV. The Purpose of the Investor

Investors, according to their purpose, may be described as:

1. Those wishing a safe, permanent investment with a regular income.
2. Those wishing a safe investment, with a regular income, for a given period of time.

3. Those wishing a safe short-time investment.

To all of these two facts apply: (1) An inexperienced person is not the best judge of the safety of a security; (2) the rate of income upon a safe security is always small. A higher rate implies some element of risk.

4. Those wishing an investment with a high dividend rate and willing to take some risk in order to secure it.
5. Those wishing to develop some industry, believing it will ultimately prove profitable, though at present causing or threatening a loss.
6. Those wishing to open a new line to a regular business, believing it will prove productive of a good trade.

These are regular investments; but they are, in the nature of things, more or less speculative. They require investigation, foresight, a study of market, and other conditions, etc.

7. Those buying stocks and bonds on the exchanges, the curb, etc., with the intention to sell quickly at a profit.
8. Those buying securities of an uncertain value, believing they will bring large returns at small cost.

These are pure speculations, not regular investments, and always involve considerable risk. They frequently result in loss.

V. How to Choose an Investment

A careful study of the preceding division of this article shows that no absolute rule on this subject can be given. Especially is this true of those in groups 4, 5, and 6. Conditions and purpose, the character and fitness of the persons handling the enterprise, the amount of hazard one can afford or is willing to assume—all are factors in the solution of the problem.

For those in groups 1, 2, and 3, however, some general principles may be safely followed. These principles can be studied with profit by all investors.

General Principles.

1. Consult a reliable and experienced broker or banker.
2. Inform him of the amount available for investment.
3. Decide whether you wish bonds, stock, a note, real estate, a mortgage, or a lease.
4. State whether you wish a permanent, a time, or a short-time investment, etc.

Bond Buying.

1. If a bond is desired, see that its face states that principal and interest are payable in gold.
2. See that the security protecting the bond is ample.
3. Do not buy a bond whose foreclosure, in case of defaulted interest, requires a certain per cent of the bondholders to petition the trustee and guarantee him.
4. If the bond is registered, have it transferred by the proper party at once.
5. If secured by real estate, see that it is purchase-money real estate, unincumbered by prior lien, has good title, and is not over-bonded.
6. Debenture bonds, collateral trust bonds, bonds of a company whose earning power is not proven, refunding bonds, and plain bonds should be bought only after close scrutiny and thorough investigation.
7. Do not buy bonds in a company whose officers are speculators, whose business methods are lax, and which is not characterized by unquestioned honesty of management.
8. Government, state, and municipal bonds are usually safe, but the government may be unstable, the issue may not be legal, the bond issue may be beyond the revenue, etc.

9. The value of the bonds of a corporation—especially a public utility corporation—are affected by the length and character of the company's charter, by its ordinance or franchise rights, by competition, by its earning power and how this may be affected by business depression, and by the care with which its officials handle replacement problems and the public's interests. The replacement value should be greater than the market value.
10. Keep in mind: (a) That a blanket bond is subject to prior liens; (b) that terminal bonds may affect the value of bonds on the road; (c) that debenture bonds are about on a par with common stock; (d) that the payment of prior obligations increases the value of a bond issue; (e) that underlying issues are usually good evidence that a bond is safe.

Stock Buying.

1. Before buying stock investigate the liability that goes with it.
2. See that the certificate is genuine and properly issued.
3. Look with suspicion upon any erasures, and inquire of the company before investing large amounts unless with a reputable banker or broker.
4. Do not ask for the name of the original owner; for his reason for selling; for the number of the certificate until a satisfactory guarantee is given; or for a transfer to your name before the stock is paid for.
5. If a woman owning stock marries, the stock should be in her marriage name.
6. See that the stock is not encumbered and can be legally transferred.
7. Until a stock is transferred, the holder "of record" can exercise the rights of a stockholder. Withholding stock from transfer is at the purchaser's risk.
8. A listed stock has usually a ready market but is subject to manipulation.
9. No hard and fast rule can be given for buying stocks. Many of the principles and facts given in connection with bond-buying are applicable. But conditions, both local and general, may decide the question of the advisability of a stock investment. In general: (a) The company should have a definite earning power; (b) it should have a reputable business standing; (c) its assets should show a good margin above its liabilities (the more removed from a mine lessens the ultimate value of the stock); (d) its management should be honest and judicious; (e) its officers should be law-abiding; (f) it should have a record for prompt and steady payment of dividends; (g) its charter, franchise, and field of operation should all be upon a sound business basis.

The Note.

The note is usually bought when one wishes a short-time investment. Short-time notes are frequently offered by railroads and large industrial corporations in order to obtain ready money for some urgent expense. They are usually safe. The advantages of a negotiable note as an investment are: (a) Generally, it can be turned into cash promptly; (b) if sound, it is promptly accepted as collateral; (c) it may furnish a larger income safely; (d) it may have a number of endorsers and each indorsement may add to its soundness; (e) it may facilitate business transactions; (f) it may be guaranteed; (g) if stolen, it does not benefit the thief if specially endorsed.

Real Estate.

Real estate is often urged as the ideal investment. It has proved quite unprofitable and has caused much loss. Farm lands and city or town lots—especially those at a distance—are frequently tainted with fraud. Their character, location, and productiveness are often grossly misrepresented. Climatic conditions, a wet soil, the necessity for fertilizers or irrigation, market facilities, an amount sufficient for support till a crop is raised, the

fitness of the buyer for farm life, the improvements—these and other things are matters to be weighed carefully before buying a farm. Yet a good farm in the hands of a thrifty and competent farmer is a money-maker.

The Real Estate Mortgage.

The real estate mortgage is a good investment if for only about half the actual market value of the property, if the title is clear, if no other lien precedes, if the buildings are insured, if the mortgage is promptly and properly recorded, and if the rate of interest is satisfactory.

The Real Estate Lease.

A lease is a contract. Its expressed conditions are binding; its implied conditions may be. Whether it is a profitable investment is wholly a matter of conditions.

Banking and Brokerage Terms.

Below will be found the terms or expressions most commonly used by bankers, brokers, bond houses, and stock exchanges. The list is not exhaustive, but sufficiently large to be of service to the average business man, investor, or speculator.

"A" bond. One of the first series of bonds designated alphabetically.

Absolute endorsement. Binds the indorser to pay, if parties whose names appear prior to his fail to do so.

Accrued dividend. The dividend due but unpaid.

Accrued interest. The interest due when the transaction takes place.

Actual assets. Property whose value is certain.

Allotment. Share or portion assigned.

Backing. Indorsement or support.

Ballooning. Inflating a stock value.

Bear. A speculator who tries to depress prices.

Bearing the market. Trying to force prices down.

Blind pool. A pool left to the manager's discretion.

Bond. An obligation to pay money.

Board of trade. A commercial organization.

Bonus. A premium or donation.

Book value. Stock value based on earnings.

Bucket Shop. A place where stocks are bought and sold on margins, no real transaction in certificates usually taking place.

Bull. A speculator who tries to advance prices.

Buyer 5, 10, 20, etc. Bought for delivery on any day demanded by the client within the number of days specified, a day's notice being given.

Call. A contract binding one to deliver on demand at a given price.

Call loan. A loan payable on demand.

Cats and dogs. Worthless or poor securities.

Certified check. A check whose payment is guaranteed by a bank.

Close corporation. A company whose stock is not on the market.

Collateral loan. A loan protected by a pledged security.

Consolidated bond. A bond taking up or replacing two or more previous issues.

Cooked. Manipulated or garbled.

Corner. An effort to secure a monopoly.

Coupon. A detachable form showing amount of interest or dividend due on a certain date.

Cumulative dividend. A dividend which cumulates, if not paid when due, and which takes preference over any dividend on common stock.

Dividend. A profit paid to a stockholder and supposed to have been earned.

HOW A CHECK IS USED IN BUSINESS

Chicago, Sept. 30th 1911. No. 250

The First National Bank
of Chicago

Pay to the order of Mary E. Jones $10.00

Ten ——— Dollars

For Bal. salary to date — John D. Smith

1. MISS JONES RECEIVES A CHECK FOR THE BALANCE OF HER SEPTEMBER SALARY.

2. MISS JONES GIVES THE CHECK TO HER LANDLADY IN PAYMENT FOR BOARD. SHE ENDORSES THE CHECK BY SIGNING HER NAME ACROSS THE BACK AT THE LEFT END.

3. THE LANDLADY GIVES THE CHECK TO HER GROCER AND ENDORSES IT AGAIN.

4. THE GROCER DEPOSITS THE CHECK IN HIS BANK, ENDORSING IT AS DID THE OTHERS.

5. THE CHECK IS SENT BY THE BANK TO THE CLEARING HOUSE WITH MANY OTHERS, ASSORTED INTO AS MANY PACKAGES AS THERE ARE BANKS FROM WHICH TO COLLECT.

HERE TWO CLERKS FROM EACH BANK IN THE ASSOCIATION MEET AT A CERTAIN HOUR EACH DAY, WHEN CHECKS FROM THE VARIOUS BANKS ARE EXCHANGED AND THE BALANCES DUE ARE DETERMINED.

6. THE CHECK THEN GOES BACK TO THE BANK UPON WHICH IT IS DRAWN; ANY BALANCE DUE OTHER BANKS IS SETTLED; AND THE CHECK, MARKED PAID, IS RETURNED TO THE DRAWER WITH MONTHLY STATEMENT OF ACCOUNT.

Ex-dividend. Not including the dividend declared.
Fixed charges. Regular expense of conducting a business.
Foreign exchange. Drafts drawn in one country but payable in another.
Founder's shares. Shares issued to promoters.
Gold bond. A bond payable only in gold.
Hypothecation. Pledging property as collateral.
Industrial stock. Stock of a manufacturing or public utilities corporation.
Joint bond (or mortgage). One issued jointly by two or more parties.
Judgment note. A promissory note authorizing entry of judgment without process.
Kiting. Discharging an obligation by incurring a new one.
Listed stocks. Stocks admitted to sale by an exchange.
Mortgage. A lien to secure a debt.
Net. Not subject to any deduction.
Non-assessable. Stock not subject to assessment.
No protest. Not to be protested if not paid.
Operating company. One handling but not owning a road, etc.
Option. A right to purchase at a given price within a given time.
Overlying or second mortgage. A mortgage subject to another mortgage.
Paid-up stock. Stock paid for in full.
Par. Face value.
Passive bond. A non-interest bearing bond.
Pool. A combination to regulate prices.
Preferred stock. Stock entitled to a dividend before the common stock.
Proxy. A person or instrument representing another.
Put. A privilege to sell at a given price within a stipulated time.
Quotation. Price on a stock or bond.
Right. Privilege to subscribe to a security issue.
Serial bonds. Bonds redeemable as specified.
Subsidiary company. A company whose stock is controlled by another company.
Time loan. Money loaned for a given period.
Voting trust. A combination formed to vote stock as it may think best.
Working capital. Money for operating expenses.

The Corporation, the Trust, the Sherman Law.

1. Combinations of capital necessary in large undertakings.
2. A corporation illegal only when it restrains or obstructs legitimate business.
3. The illegal combination may be of capital, of labor, or of both.
4. The power of Congress to regulate corporations derived from the provision of the national constitution on interstate commerce. (Art. I, Sec. 8.)
5. The law can control because the right of the people is superior to the right of either capital or labor.
6. The law must be constructive, not destructive; must regulate, not impede; must protect the people without injuring capital or labor.
7. A trust is illegal when it aims to destroy competition and to so control any product as to injure the proper rights of the public at large.
8. The Sherman Law devised as a remedy for an evil. It can be wisely enforced only by a study of rights and of conditions.
9. Business looks to profit for capital and to compensation for labor; but to neither at the expense of the public in the form of a grinding monopoly.
10. Requiring courts to pass upon business a necessity, not a virtue; a source of danger from negation, and from not recognizing the need of a creative power and a benefit in business.

11. The Sherman Law defective from lack of a constructive element—power to protect the corporation in the legitimate development of business.
12. The Sherman Law is on the same principle as the Interstate Commerce Commission—that the people have the right to regulate anything which they create. (See the Declaration of Independence.)
13. The right of the people extends only so far as proper conduct and just purpose. Form, internal management, legitimate business secrets, enterprise and initiative, etc., cannot be wisely interfered with. Proper regulation promotes business, it does not paralyze it. (See President Taft's message, December 6, 1910.)
14. Concentration of capital and influence so as to control money and financial transactions, thus indirectly throttling competition, is the menace to public interests, at which the Sherman Law is aimed. Its ultimate interpretation and application are determined by the courts.

Relation of the Employer to Business.

1. The employer must obey the law. A law-breaker sets a bad example to employes.
2. He should deal justly with competitors to maintain public confidence and respect.
3. He should be fair to employes; pay wages promptly, and pay them in cash.
4. By cutting down wages and inflating capital he may incite labor to resentment, to strikes, or even to a disposition to destroy; and he may antagonize the consumer.
5. He should know business generally and his own business thoroughly. Without studying his own business, the employer can neither regulate nor advise his employes wisely.
6. He should be a student of business art, business relations, and business conditions. Without this, he invites disaster.
7. He should be quick to recognize merit in an employe; prompt to reward loyalty (as it often causes a sacrifice by an employe); and as liberal as the business in hand will permit.
8. He is entitled to faithful service; to a fair return upon his capital and effort; and to handle his business without dictation or interference.
9. He should visit other concerns conducted upon a similar basis and other concerns in the same line. It broadens him and often gives a valuable suggestion.
10. He should know the regulations of his own establishment; should be acquainted with the character of the head of each department and his disposition to superiors and to subordinates; and he should see that, as far as practicable, his factory or shop is in harmony with the local board of health.
11. He should recognize that every good citizen is free; that the principle upon which this government is founded gives an employe the right to reject or accept a price offered for his labor; that this right is neither dependent upon nor opposed to his membership in any organization; and that coöperation with both his employes and with other employers is a valuable means of success.
12. He should not be cowardly—his employes will not respect him; should not be overly selfish—his fellow employers will not trust him; and should not be too greedy—the public will not buy his goods.

Relations of the Employe to Business.

1. He should recognize that the employer is entitled to a fair return on his capital; to sufficient additional profit to protect the risks and the wear and tear of the business; and to a fair wage for his own effort and ability.

2. He should remember that there is a better way to secure fair wages than by destroying the property out of which he gets a living, or by rendering the business unproductive.
3. Being one of the elements of business production, the employe is entitled to a fair share of the profits and should not rest content until all legitimate means to secure this have been exhausted.
4. An advance in wages is proper if due to:
   a. Merit or efficiency of the employe.
   b. A long and satisfactory service.
   c. A large growth in the business—especially if due to his effort.
   d. An increase in the value of the product.
5. Allowance for injury depends on:
   a. Whether due to the employe's neglect or carelessness.
   b. Whether due to the employer's neglect or carelessness.
   c. Whether due to the dangerous nature of the employment.
   d. Whether due to an act of God and thus beyond the control of employer or employe.
6. Allowance for sickness.
   a. If due to the employment, there is ground for recovery from the employer.
   b. If due to other causes, employe has no legal claim upon the employer.
   (In respect to 5 and 6 a change would be effected by the proposed enactment of employers' liability laws.)
7. Unnecessary hardships.
   a. The employe's manhood must not be degraded.
   b. He must not be robbed of his individual freedom.
   c. He must not deprive others of their freedom by threats or by injury.
   d. The hours of employment must be reasonable.
   e. He should not be kept "upon the anxious bench" as to compensation or as to loss of position.
   f. He should not be called to account because of politics, of religion, of color, or of connection or non-connection with any organization, unless it interferes with the discharge of his duties as an employe.
   g. He should not be compelled to labor under conditions that are not sanitary if the nature of the business renders it possible to have it done with healthful surroundings.
8. Loyalty to the employer.
   a. It is a principle of life that he who eats another's bread should not betray the hand that feeds him.
   b. The employer is entitled to faithful service.
   c. Quitting before a date agreed upon forfeits legal claim to compensation for part time.
   d. "Eye service" is not honest service in the eyes of the law.
   e. Employes are in one sense agents for the employer's business. Loyalty to themselves requires them to endeavor to promote the success of the business by their conduct.
   f. The employe has no right to injure the business by misconduct, by bad morals, by insinuation or open condemnation, or by revealing knowledge that comes to him by virtue of his employment.
   g. The employer has a right to insist upon promptness, persistency, and steady application.
   h. The employe has not the legal right to allow a grievance, real or imaginary, to make him a discontented grumbler, disturbing the peaceful work of those about him.

9. Causes justifying discharge.
    a. Lying, fraud, or deliberate deception.
    b. Failure to do a work agreed upon unless justified by a proper excuse.
    c. Abandoning the employment before a time agreed upon.
    d. Gross immorality, licentiousness, drunkenness, or viciousness.
    e. Inefficiency or unfitness.
    f. Insubordination.
    g. Mischievous activity against the interests of the firm.
    h. Conspiring to do the employer or his business a harm.
    i. Grossly interfering with another employe, his work, or his usefulness to the business.
    j. Betrayal of the firm's business secrets or of its interests.
    k. Deliberate and persistent violation of the company's rules for conducting its business.

Relation of the Public to Business.

1. All public utilities and corporations get their right to do business from the people.
2. They are created primarily to serve the interests of the people.
3. For these reasons they are answerable to the people for the conduct of their business.
4. As their product is consumed by the public, onerous conditions or unreasonable prices arouse criticism and antagonism.
5. Good homes, pleasant furnishings, ability to patronize art, entertainments, public development, etc., are dependent upon wages and price.
6. Strikes, lockouts, rioting, discontinuance of production, destruction of property—all are injurious to public interests and give the people the right and officials the duty to interfere.
7. Neither the ends of justice nor the interests of the public justify espionage, unreasonable interference with the conduct of a business, unfair demands upon an employer or a corporation, the inference that an industrial combination is necessarily injurious, or the arbitrary enactment of unwise laws. Employer and employe are entitled to fair play as well as the consumer.
8. The consumer must furnish proper reward to capital; he must protect labor from imposition; he must promote harmonious coöperation between capital and labor; and he must be equitable in his demands.

Facts About Arbitration.

1. A principle cannot be arbitrated—it can only be surrendered.
2. A question of practice or a difference of views may be arbitrated if both parties agree.
3. The arbiter cannot be governed by general rules, by precedent, by technicalities, or by influence—only by common sense, equity, and courage.
4. The desire for arbitration must be sincere if permanent industrial peace is to follow.
5. Arbitration is not to be desired. The decision usually leaves both parties discontented. Harmonious agreement upon a proper understanding of business conditions is preferable.
6. In arbitration between capital and labor the third party—the consumer—is never represented. Yet he is as deeply interested as the other two when disagreement results in business disorganization.
7. If arbitration is agreed to, all parties must honestly accept and loyally abide by the decision. Crafty evasion, artful substitution, or an open refusal to accept are not honorable and are usually disastrous in result.

8. Arbitration should be between business organizations with just dispositions. The organization of employers should have the disposition to grant employes fair wages and equitable conditions; the organization of employes should be equally disposed to leave the management where the experience, the money, and the risk are, and to grant to these a fair return and a proper consideration.

AGREEMENT TO REFER

(*Place and date.*)

Know all men, That we (*full name* or *names*) of (*place* or *organization*) and (*full name of party, corporation, or firm*) of (*place and state*), having each of us due authority in the premises, do hereby promise and agree, to and with each other, to submit and do hereby submit (*specifically describe the matter referred for arbitration*) to the arbitration and determination of (*name the arbitrators in full*), whose decision and award, unanimous or by majority vote, shall be final, binding, and conclusive on us.

Witness our signatures at (*place and state*) on the (*date*) of (*month and year*).

(*Signatures*) .....
.....
.....

ARBITRATORS' AWARD

To any one to whom this may be presented, We (*names of arbitrators in full*), to whom were submitted as arbitrators the matters in controversy between (*name and describe the parties carefully*), do hereby state:

First, that we were duly sworn as provided by law.

Second, that we have heard the proofs and allegations of the parties to the controversy.

Third, that we have examined the matters submitted to us with great care.

Fourth, that we make the following award:

(*Here state the award concisely and accurately in writing.*)

In witness whereof we hereby subscribe our names this (*date*) day of (*month and year*) at (*place and state*).

Witnesses: .....
.....
.....

(*Signatures*) .....
.....

THE FARMER AND THE MARKET

Any presentation of the problems facing the farmer of the United States is imperfect. The business itself is not yet being conducted on a scientific basis. Knowledge of the land and of seed is crude. The problem of transportation has not yet been studied in a methodical way by farmers. The question of the best market and a fair price is still open. The most desirable forms of coöperation are still open to discussion. But, notwithstanding all these drawbacks, the farmers of the country are making wonderful progress in studying the factors of the market problem and in working out a satisfactory answer.

It needs but a glance to see the importance of farming as one of the great lines of the business world. Recent reports show that there are 6,340,120 farms in the United States alone, and that they have a value (with their products) of over $31,000,000,000. Farm animals are valued at $5,138,486,000, and in 1909 Chicago packers report that they used 1,637,295 cattle and 6,298,205 hogs. Census reports show that the farmers of this country produce one-tenth of the world's product of sheep, one-

fifth of the world's cattle, one-quarter of its horses, one-third of its hogs, two-thirds of its mules, and over one billion pounds of beet sugar. The problems to which the farming business is directing its attention are presented herewith.

1. **The Selection of a Farm.**
   - a. Where located.
   - b. Character of the soil; how it lies; kind of plowing required.
   - c. Climatic conditions in relation to the farmer and health.
   - d. Climatic conditions relating to the fertility of the soil:
     - (1) Rainfall—amount and period.
     - (2) How it can best be fertilized.
     - (3) Irrigation (arrangements for, cost, permanency, etc.).
   - e. Convenience to market and transportation facilities.
   - f. Title; why being sold; actual value.
   - g. Improvements made or necessary.
   - h. The machinery expense involved.

2. **The Development of the Farm.**
   - a. Is it suited best for cultivation or for stock?
   - b. If for cultivation, what crop and why?
     - (1) Chemical analysis of the soil.
     - (2) Danger from soil diseases, plant diseases, etc.
     - (3) Danger from destructive insects.
     - (4) Crops: wheat, corn, oats, barley, rye, hay, buckwheat, hemp, cotton, tobacco, sugar, beets, potatoes, celery, market garden products, etc.
     - (5) What qualities should the best seed have?
     - (6) Amount needed for home consumption?
   - c. If best suited to stock raising:
     - (1) What kind of stock—horses, cattle, hogs, sheep, mules, goats, or poultry?
     - (2) Breed, purpose, market.
     - (3) How fed and cared for?
     - (4) Effect on other animals.
     - (5) Relation of breed and food to milk, butter and cheese production, wool crop, etc.
     - (6) Relation of breed and food to flesh building; to raising qualities; to egg production, etc.
   - d. If devoted to fruit raising:
     - (1) What fruit is it best suited to—apples, pears, peaches, plums, apricots, grapes, pecans, olives, etc.?
     - (2) Danger from tree or fruit diseases.
     - (3) How protect from insects?
     - (4) How plant the trees so as to get most from the ground without injuring the trees?
     - (5) When can a plant be allowed to produce?
     - (6) Preparation of the crop for market.
   - e. What attention should be given to forestry?
   - f. Give consideration to the best method of fertilizing, to irrigation, and to drainage.

3. **Disposition of the Product.**
   - a. Thoughtful study of distribution pays.
   - b. Is the nearest market always the best market?
   - c. Is it best to endeavor to market the crop direct or through a commission merchant?

d. It is the best policy to stick to an honest and square commission merchant, even though someone else offers a larger price for a special crop.
e. How best secure fair transportation charges from railroads, ships, and express companies?
f. When is expressing better than shipping in iced cars?
g. What attention should be given to having the product in the best shape before shipping and what to its care *en route* to market?
h. The total capital invested in butter, cheese, and condensed milk production in the United States in 1905 was $47,255,556, and the number of wage earners employed was 15,557. What does this suggest as to the product of milk cows and goats?
i. Importance of healthfulness and cleanliness in milk shipped direct to market.
j. What value has the reputation of a shipper in the matter of prompt sale, price, orders, full remittance, etc.?
k. Should a farm be forced—even to the extent of temporary exhaustion—to secure a big market?
l. Immediate sale or hold (price, drying out, withering)?

4. **Associations and Combinations.**

a. The farmers' association can discuss:
(1) Soil composition; soil fertilization, etc.
(2) Crop rotation and its advantages.
(3) Disease (cattle, tree, fruit, plant).
(4) Local market and transportation problems.
(5) Social and sanitary questions.
(6) World market, tariff, etc.
(7) Advantage or disadvantage of commercial clubs, city commercial associations, railway associations, farmers' associations.
(The general standpoint of market and price for product should be kept in view.)

b. Combinations may be formed:
(1) To limit production.
(2) To enlarge production.
(3) To control the market as to shipments, as to price, as to transportation, etc. (in connection with combinations of buyers, commission merchants, cold storage companies, and speculators on an exchange).
(4) To secure fair shipment rates.
(5) To secure harmonious coöperation in handling commerce (with commercial associations, combinations of capital, the banking interests, etc.).
(6) To learn the facts of distribution, the production of other sections of their own country and of other countries, their relations to the world market and to industrial development and industrial peace, and to know something of system in plan and in marketing produce.

PUBLIC AND PRIVATE CARRIERS

Obligations — Liabilities

A party who undertakes to carry goods or passengers is either a public carrier or a private carrier. A public carrier makes a business of transporting goods or passengers from one point to another. The private carrier engages in transferring from

one point to another as a special undertaking, not as a regular business. Common sense, the law, established usage, and custom all have a bearing, but there are certain general facts and principles which may be stated briefly.

In mentioning the different "Kinds of Business" we include RAILROADING and NAVIGATION. Both railroads and ships are carriers because engaged in transportation; but the same general principles, obligations, liabilities, rights, etc., apply, and so we do not separate them, though each is a distinct business in itself.

1. **The Private Carrier.**

a. Engages in a special undertaking.
b. Usually makes a specific contract.
c. Should see that the contract is clear and definite as to his duty and as to the other party's duty.
d. Must exercise care and diligence in discharging his obligations as a carrier.
e. Is liable for loss or injury if not traceable to a fault of the owner.
f. If transportation by a private carrier is without compensation—merely as a friendly act—he is liable only for gross negligence.
g. If the private carrier undertakes transportation without a specific agreement. he is nevertheless bound by the general law of contract and by the general rule of liability for service undertaken to be rendered.

2. **The Public or Common Carrier.**

a. Obligations if carrying passengers.
(1) The common carrier must carry those who offer and pay the price, if proper persons in proper condition.
(2) If it can be done without unnecessary violence or injury, may remove or cause to be removed any disorderly passenger creating a disturbance.
(3) May refuse or remove bad characters, those passengers having an infectious disease, etc.
(4) Need not take on passengers if already loaded to capacity.
(5) Must exercise unusual and diligent care to protect the life and person of the passenger.
(6) Must transport passengers with reasonable promptness and stop at the usual places or at a place agreed. (The body of a deceased person may be carried for one fare in the baggage car.)
(7) Is not required to control passengers beyond a reasonable restraint.
(8) Cannot force a passenger to assent to unreasonable rules or prices (considering the carrier's business and obligations).
(9) Must provide suitable and comfortable means of transportation and carry over the whole route.
(10) Must secure proper persons as employes or servants with a view to the comfort and safety of passengers.
(11) Can protect passengers from injury or annoyance while on his property or under his charge (from thieves, pickpockets, solicitors, drunken or insane persons, etc.).
(12) Must notify passengers of any unusual danger. Must not subject them to special peril.

b. Obligations if carrying freight.
(1) The common carrier must take goods offered by all parties or show good cause for not doing so.
(2) Must transport goods promptly.
(3) Must protect the shipper from loss or injury.
(4) Can refuse goods not in proper condition for shipment.

(5) Must protect goods which he stores on his own premises for his own convenience before carrying to their destination.
(6) Is not under obligation to carry goods without pay or satisfactory security.
(7) Is under obligation to have employes who are civil, competent, careful, and energetic.
(8) Is under obligation to make good delivery of freight consigned to his care.
(This is commonly understood to include promptness, delivery in the right way, delivery to the proper person, delivery during business hours [unless otherwise agreed], and delivery in as good condition as received.)
(9) May on satisfactory evidence, with proper indemnity and under full security, deliver to some other claimant than the consignee.
(10) Is not under obligation to deliver goods on which the freight charges are unpaid if he refuses to make delivery on this ground; but he is under obligation to protect the goods from injury or theft.
(11) Is liable as soon as goods are accepted.

c. Obligations if carrying baggage.
(1) The common carrier must handle baggage with care.
(2) Must deliver all baggage at the point to which it was to be carried.
(3) Must deliver baggage to the right party.
(4) Must keep baggage uncalled for for a reasonable length of time.
(5) Must deliver baggage promptly.
(6) May reasonably limit baggage in kind, quantity, condition, value, etc.,—but this is largely determined by courts and juries.
(7) Must carry a limited and reasonable amount of baggage with a passenger.
(8) Must consider the needs and conditions of business in handling baggage.
(9) Must secure trustworthy and careful employes for the handling of passengers and their baggage.

d. Liabilities of the common carrier.
(1) The common carrier is liable for loss or injury to passengers if he has not exercised unusual care to provide for their safety.
(2) May be liable if an accident is not due to his fault or neglect—as in a railroad wreck due to children's placing obstructions on the track, or a boat's sinking from striking an obstruction.
(3) Is liable for delay, or for preventing a passenger from taking a trip, because his conveyance is full, if he has not sold the transportation upon condition of there being room.
(4) Is liable if the passenger is not transported over the whole route for which the ticket was sold, in a reasonable time, at a reasonable price; or if he does not stop so the passenger may alight at the usual place. ("Express" trains, "specials," chartered trains or ships, etc., may have irregular routes.)
(5) Is liable if the passenger, through his lack of care, contracts disease, is exposed to filth or vermin, is injured or meets with loss through the carrier's incompetent or dishonest employes, or is put in peril by reckless servants of the carrier.
(6) If the passenger deliberately and knowingly assumes a risk, or if his damage is due to an act of God, or to the carrier's obedience to a law, or to the passenger's own condition or misconduct beyond the carrier's control, then the carrier's liability ceases.

(7) In the transportation of goods for pay the carrier is liable if the goods are not in as good a condition as when he received them; if he delivers to the wrong party; if he does not deliver in a reasonable time; if he does not deliver at a reasonable hour; if the goods are destroyed by fire or by wreck; if the goods are not delivered at the point designated—even if beyond his line—if he shares in the profits of transporting for the entire route; and if his employes are reckless or dishonest.

(8) The common carrier is liable both for immediate and for prospective loss or damage; if he refuses to transport goods without legal grounds or because of personal enmity; if damage or loss is due to his transacting some other business at the same time; if he refuses to carry because the owner of the goods will not pay an unreasonable price; or if he knowingly delivers to a party that he believes intends to practice fraud or swindling.

(9) The common carrier is not liable if he refuses because the goods are dangerous; or out of his usual line; or require extraordinary means of transportation; or do not have the charges paid or guaranteed; or will overload his vehicle; or may be seized by a public enemy; or are in peril because of some act of God; or are tainted with fraud.

NEGOTIABLE NOTES

1. **Conditions of a Negotiable Note.**
   a. The payee should be distinctly named.
   b. The promise to pay should be unequivocal.
   c. The promise to pay should be absolute.
   d. There should be a legal consideration for which the note was given.
   e. "Value received" is not necessary on the note.
   f. A note given without consideration but to help the credit of another is negotiable.
   g. An illegal consideration operates as no consideration.
   h. A note's negotiability may be strengthened by indorsement.
   i. Not being due is an element of strength in a note; being overdue is a warning.
   j. Endorsement "without recourse" releases the endorser from liability.

2. **Payment of a Note.**
   a. A note should be presented for payment when due.
   b. The holder of a note should demand payment when it is due. He may lose if he sleeps too long on his rights.
   c. Endorsers should be immediately notified if the maker of the note does not pay.
   d. The maker or a previous endorser is first responsible.
   e. "Days of grace," if in the statute, are binding.
   f. A note payable at a particular place should be presented at that place.
   g. Not demanding payment legally may release all endorsers.
   h. A note should be protested if not paid when due, and all interested parties should be notified at once.
   i. A payee may make a note payable to his own order and then endorse it.
   j. An endorsement of a note guarantees previous endorsements to be genuine.

MUSIC

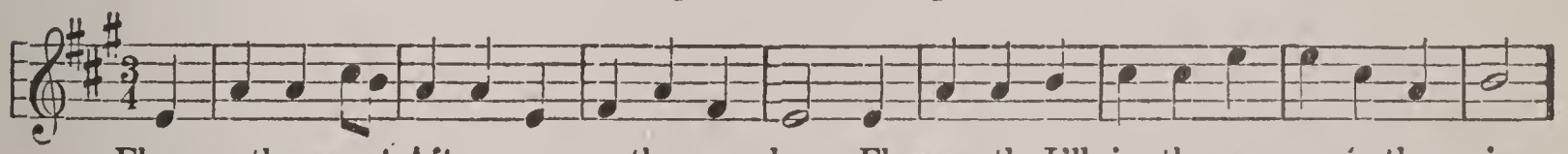
According to mythology the early Greeks accredited the source of music to the infant god Pan, who, it was claimed, when only a few days old, first brought forth musical tones from a reed he plucked from the fields. If this myth shows nothing more, it is evidence that these early people held this art of sufficient importance to endeavor to attribute its origin to the gods. The real beginning of music, history shows us, goes back as far as the history of mankind, manifesting itself, though in a crude manner, in the attempt to express those feelings of joy or sadness usually attendant upon religious festivities. From the very first, men seem to have recognized in music the true language of the emotions and to have turned to it as the only vehicle for expressing that for which words alone seem inadequate.

The slight advance made in music up to the Christian era had little direct effect upon the art as we know it today. Greece with its unrest, Rome with its militarism, could do little to foster an art which looks to peaceful meditation as its inspiration. With the beginning of the Christian era, however, music found its patron and preserver. The Church was quick to recognize the benign influence of music in rendering its followers more susceptible to its teachings, and the monks in their seclusion found both time and quiet to develop music and to adapt it to the needs of their religious services. The Gregorian Chants, which are in common use in the Roman Church today, are a fair illustration of the climax of attainment reached in music from the beginnings of the Christian era through the dark ages. In fact, music as a fine art, as we know it today, dates back for its beginning scarcely more than four hundred years. A history of music, starting with the classic composers, would be practically a biography of the lives and works of these great masters.

A brief outline of musical forms and structure as used by these masters (which are also the accepted forms in present-day music) is as follows:

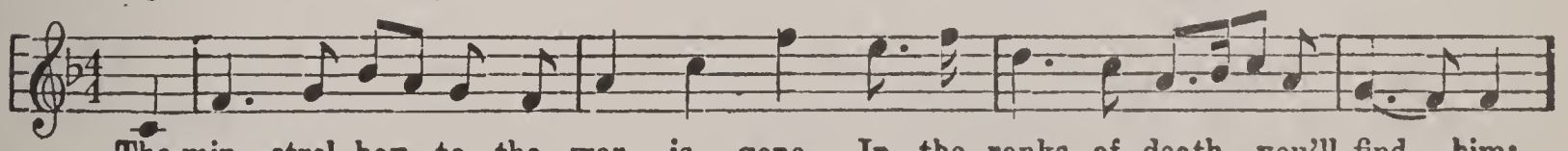
VOCAL FORMS—SECULAR MUSIC

I. The *Song* is the simplest vocal form, being a melody with accompanying verse. The shortest musical sentence or song would correspond to a two-line verse.



Flow gently, sweet Afton, a-mong thy green braes, Flow gently, I'll sing thee a song in thy praise,

A *Folk Song* is a narrative song that has grown up among a people—often based upon legendary events. Most of the best known Scotch songs are folk songs, no one knowing when they originated. "Flow Gently Sweet Afton" is an example.



The min - strel boy to the war is gone, In the ranks of death you'll find him;

A *Ballad* is a simple song which tells a story or is a description. All verses are sung to the same tune, and it is thus in contrast with an *Art Song* which has characteristic music for the various verses. An illustration of the Ballad is "My Old Kentucky Home," or "The Minstrel Boy."

II. *Concert Music* is music in which two or more parts are sung at the same time. The *Duet* is a two-part composition where the two parts are of equal importance, contrasted with a two-part song where one part merely accompanies the other. A three-part composition is a *Trio;* a four-part, a *Quartet,* etc.

III. An *Opera* is a versified drama or play set to music for both voices and orchestra. The primary purpose is to display feelings and passions. The play or drama is called the *Libretto* and the music of the opera is the *Score.* The elaborate songs for solo voices are referred to as *Arias;* and a declamatory passage in which a singer imitates as nearly as possible the natural speech is a *Recitative.* The opera introduces the Aria, the Recitative, the Duet, Trios and Choruses, with instrumental accompaniment.

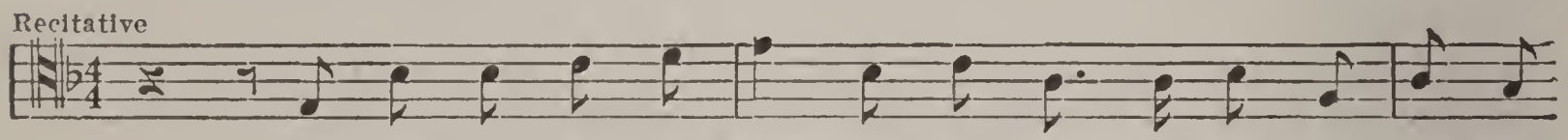
A *Grand Opera* is of a serious nature and contains no spoken dialogue.

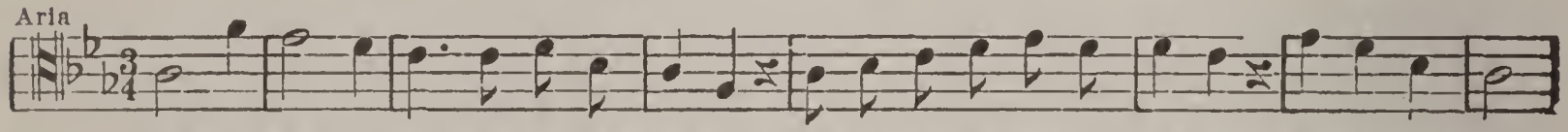
A *Comic Opera,* which differs from the Grand Opera in that it contains some spoken dialogues, is a light musical farce, the libretto often being scarcely more than a framework upon which to build the more elaborate musical settings.

An *Operetta* is a small opera, unpretentious and gay.

SACRED MUSIC

Most of the shorter forms mentioned under "Secular Music" may be adapted to words of a religious character, but there are certain forms that are primarily sacred.





An *Oratorio* is a composition similar in its distinctive parts to the opera, but with a text founded upon scriptural narrative. Although distinct characters are represented, an oratorio is performed without action or scenery. Among those most frequently rendered in this country are Handel's "Messiah" and Haydn's "Creation."

A *Cantata* is a short musical composition with a given theme or text. It comprises choruses and solos and has an instrumental accompaniment. It may be either sacred or secular. A good example of the sacred cantata is Sir John Stainer's "Crucifixion"; and of the secular, "Building of the Ship" from Longfellow's poem, music by Lahee.

THE TEACHING OF VOCAL MUSIC

It is only within recent years that the public has come to feel that a musical education can be finished in this country. Musical authorities at home and abroad agree that the United States is just entering upon an era of distinctive American music when opera will be given in English by American born and American trained singers.

Symphony orchestras from musical centers are touring the whole country and the general musical appreciation is being uplifted. Probably the greatest retarding agency in the advancement of music is the prevailing idea that only the elect can learn to perform or appreciate music. Real appreciation of music or any other art presupposes a working knowledge of the underlying principles of that art, as well as familiarity with the highest types of its production.

Only a small minority of children can ever be taught music by private teachers for two reasons: financial restriction, and indifference on the part of many parents, who will not take the initiative in starting the musical education of their children. It therefore rests largely with the public school teachers to create a love for music in the

children among whom they work, as well as to give them a working knowledge of music. This responsibility of the public school teacher in giving children a fair start—and the right kind of a start—in music will be more fully appreciated if it be realized that scarcely more than one per cent of our population attends school beyond the age of fourteen, and likewise if it be realized that musical proficiency is rarely attained unless a love for and an understanding of music is acquired before this age.

PUBLIC SCHOOL MUSIC

1. What should we expect children to accomplish in music in the public schools?
2. What should we expect of the teacher?

A brief answer to the first question is: Children should sing and hear so much of the best music that they will not care for the bad. Good music does not necessarily mean difficult music. By the time the eighth grade is reached pupils should read most music fluently. Children should know how to use their voices to the extent of producing a clear, light tone.

An answer to the second inquiry is: First of all the instructor must be a teacher. If she can teach a class in reading and will not try to make an exception of the music lesson, she will probably be successful. The necessary qualifications of any teacher for handling music in her own school, in addition to her ability to teach any other subject, are a good ear, a clear, light voice, and the ability to sing a simple song through sweetly and accurately.

The following outline for music in the common school is offered with no reference to text-books. It would be well to note, however, that little but the better class of music is offered in the music books issued by reputable educational publishers.

General Suggestions

If waste is the great American sin, waste of time in the music lesson is the great teaching sin. Children learn to sing by singing, not by having the teacher talk about it. Children learn to read music by reading it, and not by means of musical grammar.

The *child voice,* contrary to prevailing public opinion, is high, not low. Until twelve years of age the boy's and girl's voices differ chiefly in quality, not range, the boy having greater clearness and power. Anything from the boy but this clear voice, like the tone of a woman, is not singing but yelling. Any attempt of a boy to sing bass until he has reached maturity is folly.

Primary Grades

The ordinary first year class, upon entering school, comes with practically no experience in singing. Most of these children have a fair command of English in which to express themselves, and thus are equipped to begin their work in reading; but in music the means of expression must be furnished them in the school room, and it usually takes the great part of the first year to teach them a sufficient number of good songs which shall be a basis for their subsequent work. Thus the first year's work is chiefly the

Rote Song. As to the best manner of teaching a rote or imitation song, the teacher will do well to bear in mind that the chief thing is to "arrive" and not "how did you come?" Sing the song through once or twice completely for the class; then begin singing each phrase or line, letting the class repeat until the song is learned. Children in primary grades should seldom sing lower than E♭, the bottom line of the staff, nor higher than F, the top line.

Children need to sing much faster and lighter than adults, and the teacher should sing the song the first time just as she wants the class to sing it. A class knows a song when every individual can sing it. If monotones trouble, those using them should be seated in the front where they will be surrounded by the better singers and be

near the teacher. Short songs are better than long ones and nothing but children's songs should be used.

Ear Training—Vocal Exercises. If children are kept singing songs in a light, pleasing tone, they are getting all the ear-training and voice-training they need, or that the ordinary teacher knows how to give. Special ear-training and vocal exercises and action songs (except the latter in a mild form) are good examples of a waste of time.

From Rote to Note. If rote songs are exclusively used longer than the first year the children will lose interest and feel that they are "getting nowhere." Any real teacher will know that if children do not gain independence and the ability to think for themselves in any subject, something is wrong. Music is no exception to this rule. As the A, B, C, method of teaching reading has long since given way to the sentence method, so has the scale method of teaching music given way to the complete song method.

Many of the difficulties of teaching children to read music will be removed if teachers will see that they teach nothing that children do not need to know in order to read simple music. For example, key signatures materially affect the piano pupil and he needs to understand the flats and sharps. They do not affect the singer, and all that children need to know at first is where the key tone is found. Therefore, the key of E♭ or E, either, placing *Do* on the bottom line, is easier for children than the old key of C. Given a class of children who know from fifty to one hundred rote songs and are ready to have notes placed before them for the first time, the following will suggest a simple manner of procedure:

At least a dozen of the rote songs should be short, simple songs, taken from the book from which pupils are first taught to read. Select one of these to use as a "pattern" song and place it on the board.

Now point to the words while the class sings the song which they know from memory. The teacher, telling the class that she will sing it with some new words, points to the notes and sings, mi, re, do, re, mi, fa, sol, sol, la, sol, la, sol, ti, do. The class repeats these syllables until learned, the teacher pointing each time. As soon as the pupils can sing the notes correctly they are asked to turn to the same song in their books and sing it, *pointing to the notes while they sing,* as the teacher did on the board. The teacher can then call attention to the number of counts, the different kinds of notes, etc. For two or three successive lessons songs in this same key may be given in the same manner as this, using these pattern songs. Then the children will be asked to sing a simple song that they have never sung before, in this same key, and for several lessons following they will sing in this key.

For the first few lessons the teacher might help them over a difficult place in the same judicious manner that she would help a beginning class in reading; but continued help in this way will be destructive of all progress. After about a dozen songs have been sung in this key, take up another key in the same manner, using the pattern song. It ought not to be necessary, however, to use the pattern song for more than three keys after this; simply tell the class where the key tone is found and have them start singing.

Individual work should be carried on systematically from the first, as it is the only way in which the progress of all the pupils can be assured. Chart or board work is most essential in these primary grades and, although children must learn to read from books, one of the songs placed on the board at least once a week will help. Rote songs should be continued through the primary grades, their place being gradually usurped by the sight-reading.

Intermediate Grades

Here the most rapid strides are made in music in both the technical and the artistic phases. The children have not reached the over-self-conscious stage and are free to express their feelings through song. The ability to read music that is com-

mensurate with their taste should make the music period a joy to both teacher and pupils.

The Rote Song stage is passed, but now and then the class should sing songs that are a little beyond their ability to read alone, being assisted by the teacher and piano.

The balance between the technical and the artistic is an important factor. The artistic is a hard side to teach, but it will grow in each individual as his power to translate the technical with ease increases—leaving him thus free to give considerable of his attention to expression.

Sight Reading is the nucleus of the work in this period, and all other phases may be grouped around it. "Read new music and plenty of it," is the slogan for these grades. Teach only what theory is necessary for them to read the music understandingly.

Advanced Grades

Safeguarding and classifying the voices of the pupils is of great importance in these grades. Girl voices are light and the boy voices clear and strong, so it is unfair to either to make the division for parts between boys and girls. Rather divide according to the range of individual voices, with boys and girls on each part.

Part-singing will receive the greater amount of attention, but unison work should not be abandoned both on account of its inspiriting nature and of the demands it makes on the whole range of the voice.

The Bass Voice will begin to show itself in the seventh and eighth grades, although with a limited range, often going its very lowest immediately after mutation.

In an eighth grade there will usually be found the following types of voices: High soprano, second soprano, and alto, among both boys and girls; then, in the older boys, a so-called alto-tenor and an incipient bass.

The boys should be kept singing through this period of the change of voice; and as it is, and naturally so, the most self-conscious stage, the wise teacher will keep them within an easy range and encourage and help them in their attempts.

Kinds of Music

A safe general rule in selecting music for school use is "Use only music that ranks with the kind of literature you would give the children."

Music for any grade should be of a character that will appeal to children of that particular age. There is so much good music published in both book and octavo form for school use, that there should be little trouble in securing the right kind if one avoids the latest song "hits" for children and the common popular music.

In schools where a piano cannot be obtained a good phonograph will prove invaluable. Not exactly in the sense of taking the place of the piano, but children need to hear music performed in a better manner than they themselves can do it. They need to listen to music, to note the harmony, and to hear enough good music to form a taste for it and a prejudice against the bad. A good phonograph will do a great deal in this way and a concert now and then will supply new records.

A public performance occasionally by the children, a concert, or an operetta, will lend interest to the general school music.

Biographical study of musical composers is valuable if done in the language or reading lesson, but there is no time in the short music lesson for such work.

In conclusion:—only by keeping constantly in mind the fact that the public schools are teaching live, thinking boys and girls to know and to appreciate music, and not simply rendering music with children as an instrument, can teachers do their part toward bringing about a musical community, and by a multiplicity of such communities a musical America.

PICTURE STUDIES

PURPOSE. The first great purpose of picture study is to give the child a friendly acquaintance with a few of the world's great pictures and their creators.

SECOND. The second, to give him insight into a few of the great fundamental principles of art.

THIRD. The third, to open his eyes to more ready recognition of beauty in the world about him.

FOURTH. The fourth is to increase the child's happiness as he learns to get artistic pleasure out of the beauty of line, of proportion, of grouping, of coloring.

KNOWLEDGE OF ART ESSENTIAL TO CULTURE. All children are interested in pictures. The schools have not yet learned to utilize this interest to its full educational value, though forward strides are being taken. But children, and even grown people in general, have little power of discrimination between what is pretty and what is beautiful. But as a nation we are awakening to the recognition of the value of art and its place in life.

If it is recognized as cultural to know something of Shakespeare, of Goethe, of Ibsen, of Victor Hugo and others of the world's great writers, is it not also essential to culture—the culture to which every child in America may aspire—to know something of the works of Michaelangelo, Raphael, Corrot, Murillo, Millet and many others who have interpreted religion, nature and our fellow men to the world through the medium of color or the purity and grace of marble? Whatever is essential to the general culture of a people, the American public school should amply provide for.

GUIDING OBSERVATION. Art, expressed in literature and in painting, reveals to the world beauty unseen and unnoted before. As an extreme illustration, through many years everyone looked upon the Chicago River with its sluggish water lined on both sides by box-like structures, grain elevators and piers, with its freight vessels, as an ugly spot. We have laughed with a touch of pity over the little Chicago girl who said, "I hate rivers. They smell so." But at last the artist, Albert Fleury, painted a series of pictures of this same river with its quaint shipping in the misty morning and dewy evening and lo, it is beautiful! Lovers of art rejoiced over the beauty thus revealed to them in the pictures, and thereafter whenever they crossed the river they saw the beauty to which they had before been blind.

When the poet or the painter has looked with his beauty seeing eyes upon the picturesque peasant, the wide stretches of the desert, or the glory of snow crowned mountains, all the world makes pilgrimages to these places to look through his magic glasses.

ARTISTIC PLEASURE. To increase the sum of pure happiness by opening up a new source of joy through literature, pictures, statuary, noble architecture and real music is the privilege of the teacher.

PRINCIPLES OF ART. A few of the great art principles of construction, of lighting, of coloring, of perspective, will aid the pupils in their own attempts at expression, and give them some standards by which to judge the excellence of a piece of art.

These points will be illustrated in the studies here presented.

SHOEING THE BAY MARE—Landseer

SHOEING THE BAY MARE

This painting by Edwin Landseer is an example of modern English art.

The photograph of a group of people, however true to life, is rarely a picture in the art sense, valuable as it may be as a human record. The reason that it is not a picture is that there is no centre of interest. Each one in the picture is posed to show his best points with little consideration of picture effect. There will be as many portraits as there are individuals in the group, but no picture in the art sense.

Now let us see if we can discover in what way the artist has transformed these animals and objects into a picture.

First let us see what there is here—a blacksmith's shop, with a door at left, the upper part swung open, a mare, a donkey, a hound, a bird in a cage, a man, an anvil, a box of tools. What is the centre of interest?

What is the largest object in the picture?

"The bay mare."

Usually size is an indication of importance. What occupies the centre of the picture?

"The man and the mare."

This again is significant. Which object do we know would be most highly colored?

"The mare is bay."

Any tone of red gives prominence to that part of the picture. The white of the blacksmith's shirt has the same effect. What action is there in the picture?

"The man is shoeing the mare."

What action is there on the part of the animals?

"Just looking."

At what are they looking?

Trace with your finger a line running up the mare's neck, between her eyes and swinging on. Do the same with the donkey, the same with the hound. Where do these lines meet? Do you not find that all are interested in what the man is doing?

What do the anvil, the tools, the room itself suggest?

"The shoeing."

We know then that the centre of interest is the act of shoeing the bay mare.

What did the artist name the picture?

"Shoeing the Bay Mare."

That confirms our decision.

We find that size, position, coloring, action—all indicate the centre of interest.

But there is another phase of coloring, as artists use the term, to be considered, and that is the use of light and shade.

What is the source of light in the picture?

Here the pupils will be sure to blunder—they will say the window and so real is the blacksmith shop to them, that they will be sure that part of the ligh comes from the forge. Get them to study the picture until they see clearly that the source of light is the upper half of the doorway.

Why is the lower half of the door closed?

The reply again will be both prompt and incorrect. "To keep the mare in while the blacksmith shoes her."

Don't tell them they are wrong. Instead ask what they miss on the mare that they would expect to see on a horse at a blacksmith shop.

"A halter."

Now we must tell them the story. This mare, Brown Betty, belonged to the fine old English estate of Mr. Bell. When he saw the beautiful mare with her pretty colt he wanted their picture, and so he asked the great English animal painter, Sir

Edwin Landseer, to paint them. But Landseer was busy and it was three years before he found the time. By that time the colt was as big as the mother herself. But Brown Betty and the blacksmith on the estate were good friends, and when she thought that her shoes needed attention, she betook herself to the blacksmith shop. Knowing this, Landseer chose to paint her on such an occasion.

Now we know that the closing of the lower half door was not to keep Brown Betty in. Let us study the effect of the strong light in bringing out the beauty of the graceful neck and fine head, and glossy coat of the mare, the head of the blacksmith, and the effect which the closed half had in toning down the donkey, the hound, and other subordinate objects in the picture.

Teach the pupils that, just as their teacher arranges the shades so that the light shines strongly from the left on an object they are to draw, so that there is a strong light on one side and deep shade on the other to help them to see and express the third dimension, so the artist by the same use of light gives depth and rotundity to the picture.

Teach them also that in hanging a picture it should be so placed that the light and shade are emphasized, otherwise they will flatten a picture by using an inappropriate position for it.

To return to our observation of the picture. Why is the donkey here? Why is the hound here? The first question cannot be answered positively Laura, the hound, has come with Brown Betty. The donkey may be there awaiting its turn.

Why is the bird here? The children will feel instinctively that the bird is evidence of a strong love for animals on the part of the blacksmith. The whole atmosphere of the picture is one of good will and kindly feeling.

There is still another art point which is well illustrated in this picture, and that is the fine discrimination of textures. There is no mistaking that Brown Betty's coat is that of a well groomed horse, the donkey is covered with a shaggy donkey hide, the hound has dog's hair, the man's hair is crisp and curly and clearly that of a man. The material of the apron is utterly different from ordinary leather, the wood of the shop is wood, the stone is stone. All this shows good technical skill on the part of the artist.

For further training in observation let the children find all of the many points of beauty in Brown Betty. The list is a long one: the shapely head, the slender neck, the star in the forehead, the intelligent eyes, the mottled coat, etc. They will miss the flowing tail which we admire so much in our American horses. But the English dock and prick the tails of their horses, which is a protection to human life, as it prevents the horse's getting the line under its tail. Thus, while the beauty and comfort of the horse is diminished, human life is made safer.

After having observed these points of beauty in Brown Betty, the children will observe with keener interest the horses which they meet as they look for points of beauty in them.

The original is a very large picture in the National Gallery in London.

The artist, Sir Edwin Landseer (1802-1873), showed his talent and fondness for drawing when he was a very little fellow. His father, who was a teacher of drawing, wisely trained the little artist, setting him in an open field near his home to sketch the animals grazing there. These drawings were shown to the father for severe criticism in the evening.

At thirteen the boy's work was exhibited, and his work as an animal painter, especially of dogs and deers, was recognized while his father was yet living, and the artist was rewarded by wealth, and by friendship with the royal family, and by the title *Sir* being bestowed upon him.

THE GLEANERS—Millet

Look for other pictures by Landseer, especially *The Connoissieurs,* which shows his portrait with a dog looking over each shoulder at the picture he holds in his hands.

THE GLEANERS

French—Jean Francois Millet.

"What is the first thing we see in this picture?"

"The three women."

"What are they doing?"

"Picking up straws."

"What is this picking up of the grain which the harvesters have left called?"

"Gleaning."

"In what country is this?"

"France."

"What has been done in this part of the field before the gleaners began their work?"

"The grain has been cut, bound, shocked, loaded upon wagons and stacked."

"Why are the women here?"

The children will need help with this question as we have no people so poor in America that they would spend their time in such gleaning. But in Bible times the Jewish people had this strict command:

"When ye reap the harvest of your land, thou shalt not make clean riddance of the corners of thy field when thou reapest, neither shalt thou gather any gleaning of thy harvest: thou shalt leave them unto the poor, and to the stranger." Leviticus 23:22. The French people follow his custom.

"Which is the oldest of the three gleaners?"

"The one at the right of the group. You can see that she is the oldest by the evident difficulty she has in stooping, and by her hands which are knotted by hard work and age."

"Which is the youngest?"

"The one at the left of the picture. You can see that by her hands, by her rounded wrist, her more slender figure, and by the easy reach of her outstretched arm. In her dress, also, you see that she has protected her neck, which suggests that she doesn't propose to get it unnecessarily tanned."

"We find, then, that the group is an old woman, a middle aged woman and a young woman."

Notice that there is a rhythmic movement in their progress over the field. Also notice how well rounded the figures are. In this respect they are comparable with the magnificent torsos of female figures among the Elgin Marbles, now in the British Museum. They seem like real people in the field, and as if one could walk around them and between them.

Let three girls pose for the three figures. They will be greatly interested to see how much more closely they must observe the picture than they have yet done before they can pose successfully.

Now describe the dress of the women. Tell the children that the garbs are bright colored in the original. A good colored postal card can be procured which will greatly help at this point.

"What month is this?"

That is easily answered from the harvest season.

"What time of the day is it?"

Now they will blunder. They will make the blunder of thinking that it is evening, because of the subdued tones of the reproduction. Explain to them, if they

do not think it out for themselves, that the shadows will tell them that it is either a little before noon or a little after noon. They cannot tell which.

Now they will make another blunder as they will think that they can tell, because they will think that the right hand is east and the left hand west, just as it is on the map.

Have them look for evidence as to whether the women have been long in the field. At the right of the picture there are a number of sheaves which they have accumulated. These do not always show in the reproduction.

"What do we call the part of the picture where the gleaners are?"

"The foreground."

"The rest of the picture?"

"The background."

"Is this a large field? How can you tell?"

"By the size of the man on horseback, and other objects in the background."

Set the children to observing the linear perspective, to measuring on their pencils how short a tree or a man looks at a distance.

Then have them look off into the distance and note the softening of the landscape and of objects in the distance, and the grays, blues or lavenders. Get them to realize that this is the effect of the air, or atmospheric perspective.

Have them see all the objects in the background and name them.

"What is peculiar about the wagon?"

"What work is being done in the background?"

"Do you find anything in the picture which does not belong there?"

This study shows the children that everything is "in keeping," in other words, that its unity as a work of art is perfect.

The figures in the foreground could be inclosed in a triangle with a very long base and short altitude. This triangle is restful.

The picture is all full of the sunshine and brightness of the summer season. For Millet placed his figures in wonderful landscapes.

The original is in the Louvre, the great art gallery of Paris.

The artist, Jean Francois Millet, (me ya), (1814-1875), was born in Grouchy, France, and early showed his talent for drawing. His grandmother, who, after the fashion of grandmothers in the peasant homes of France, took care of the children while their mother helped their father in the field, taught him religion. An uncle who was a priest taught him to enjoy Shakespeare and other great writers. After an unsatisfactory period in Paris, he and his wife and children moved to Barbizon, where they lived in an old stone house like the one you see in his picture, *Feeding Her Birds,* until his death in 1875. His wife always wore the simple dress and kerchief in which you see her in this picture, ready to pose at any moment.

Millet had his studio in a building at the end of the garden. He wore peasants' clothes, thought of himself as a peasant, and was painting a cycle of labor—the *Sower,* the *Woman Knitting,* the *Man with a Hoe,* the *Woman at the Churn* and many another—the cycle being unfinished because death claimed him. *The Angelus* and *The First Step* are among his greatly loved pictures. His *Willows* has made us all see added beauty in that tree. He saw the beauty in these humble workers, and because he saw it and loved it, he made the world see it, too. "The beautiful is the fitting" was his summary.

He had a strong feeling for the beautiful in a mass against the sky so beautifully shown in the twilight scene of the *Sower.* He often modeled his forms before painting the picture. This made his drawings more vital and effective.

He received but scant income from his work during his life, but the paintings left in his home when he died brought about $150,000 for his wife and family. We

are glad that it was an American artist who was among the first to recognize the worth in the very original work of this artist, and who helped both Millet and the family by the sale of his pictures.

THE SISTINE MADONNA

Italian—Raphael

Here we have the world's greatest religious picture.

Let us look at it aided by what we have learned of how to see a picture in the study of the other two.

Place your finger above the head of the Madonna and trace a straight line to the right including the figure kneeling. Trace a line from above the Madonna's head to the left to include the other kneeling figure. If you were to connect the two lower ends you would form what figure?

This triangular arrangement is very common in pictures. You find this a triangle of high altitude very different from the long, low triangular outline in *The Gleaners*.

"What is the centre of interest in the picture?"

"The Madonna is the largest figure; it is nearest the centre of the picture; in the colored copy it has the brightest coloring; the name is The Sistine Madonna. The centre of interest must be the Madonna."

"Good; now let us learn of another aid in determining the centre of interest—what is the position of the woman at the right?"

"She is kneeling at the Madonna's foot."

"Of the man at the left?"

"He is kneeling at her foot and looking up at her as if asking a favor."

"This subordination of the other two figures is another proof that the artist painted the picture to make us see and think of the Madonna.

There are three other art principles well shown in this picture, of which we have not yet learned.

"First, cover the picture of Santa Barbara, the woman on the right. Do you like your picture as well now as you did before?"

"I knew you would not. Now cover the picture of Saint Sixtus, the man on the left."

"You see that these two figures balance each other and make the picture more pleasing than it would be without them. See if you can find any other example of balance in this picture?"

"The curtains."

"That is true. And the drapery descending from the head to the child, which it balances."

"When the two sides of a picture are exactly alike we have decorative art; but in pictorial art we have a difference in the two sides. This we call contrast." See how many points of contrast you can find between Santa Barbara and Saint Sixtus."

"Saint Sixtus is looking up, Santa Barbara is looking down. His head is tonsured, hers is crowned with a braid of hair. Her hands are crossed on her breast; his left hand is on his breast, his right hand pointing. Her neck is bare, his is not. She is young, he is old. His robe is stiff, hers soft and clinging."

"Look elsewhere in the picture for contrast."

"The curtains are not alike. The child and the veil. The two cherubs are different. Then there is this thing down in the left hand corner."

"That is the papal hat."

"Then there is something back of Santa Barbara."

"That is a castle."

"Now look for the source of light."

"It is from above."

"And do you see all the little angel heads which fill all the space?" (These do not always appear in a reproduction.)

"This picture was painted for the high altar of the chapel in the Sistine Monastery at Piacenza, in northern Italy. Saint Sixtus was their patron saint. That is why he is in the picture. This picture was the great art treasure of the monks and was painted to assist them in their religious worship. As they knelt on the floor of the chapel praying for a vision the curtain would be drawn aside and there would be the heavenly vision of the Madonna with her far seeing eye, the wonderful Christ child in her arms surrounded by the angel host, Santa Barbara looking down with her sweet smile, and their patron saint pointing to his kneeling brethren while he looked up at the Madonna, imploring her blessing upon them."

"No wonder they loved it. For two hundred years it decorated the high altar and served its religious purpose. Then the Elector of Saxony desired it. He sent his emissaries to purchase it. The poor monks refused to part with it, but the messengers were persistent.

The monks were poor. The sum of money offered was so great that they finally yielded. One of the brothers made a copy to take its place. Then they painted a sepia picture over the original painting and it was smuggled across the border into Germany. Here it was placed in the throne room, and finally was given a room all to itself in the Dresden Art Gallery, where it is the most visited and most loved picture in the world.

The other art principle that we find well illustrated in this picture is that of space filling—a point on which the Japanese artists are supreme. You have been wondering why the curtains are introduced. By covering them and visualizing the picture without them, you will see that they add to the beauty of the whole by their appropriate space filling, though they also emphasize that the picture is a vision. Test in the same way the two cherubs and you will see how the composition of the picture is improved by them. Then, as the artist was a master of composition, you will never give credence to the story of their being introduced as an after thought.

The coloring of the Italian pictures is very bright—not so brilliant as the Spanish, but in marked contrast to the quiet coloring of the English and the Dutch.

Raphael, born in 1483 in Italy, died in 1520. Just remember that he was living when Columbus discovered America. His father was an artist, so his art education began early and continued throughout his brief life. His mother died when he was only eight years old, but a stepmother cared for him with all a mother's love. He studied with Perugino. On invitation of the Pope he went to Rome, where the last twelve years of his life were spent until his early death. He was beautiful in person and character. His work met with sincere appreciation in his lifetime and has been a joy and inspiration to the world."

MOTHER AND CHILDREN

American—Elizabeth Nourse (1859)

The picture, *Mother and Children,* is a very beautiful example of the work of an American artist of whom we are lovingly proud.

When only thirteen years of age her painting was so excellent that her parents wisely permitted her to enter the School of Design in her native city, Cincinnati, Ohio.

Her ambition was to go to Paris to perfect her art in this art centre of the world. But that requires money, and her father, a banker, had lost his in a financial panic.

MOTHER AND CHILDREN—Nourse

But the young woman worked bravely, teaching, making designs and decorating the walls of the homes of the rich until, aided and encouraged by her sister, they had five thousand dollars in addition to the little saved from the estate of their parents, who had passed away.

When she had finished the four years' course at the School of Design, she was offered a position as teacher of drawing, but she chose the best; and the two sisters went to Paris.

Here she entered the Julien School. Her strong, vigorous drawings astonished the artists who criticised her works. Boulanger said to her, "Since your drawing is so good, Mademoiselle, it is better for you to rent a studio and work alone. You will there develop your own style, uninfluenced by academic training."

Within three months she left the atelier of Julien and did as Boulanger had suggested, and in this first year she had the unprecedented honor to have one of her pictures, *A Mother and Child*, hung on the line in the Salon. She was the first American woman to be made a member of the Royal Society of Artists.

In person, she is small and womanly, with a face and manner of rare charm, but as some one has said, she paints "like a man six feet tall."

Her themes are those of the simple peasant life, but she gives them the charm of beauty which her loving eyes perceive in them.

Her pictures are always big with human interest.

See the adorable baby looking up with such a charming smile—a little French baby in swaddling clothes under the little slip. See the quaint little cap. Such a picture could never have been painted by one not a lover of babies.

You see the sister draining her bowl to the last drop, rolling her big, dark serious eyes over to her mother. There is a fine touch of humor in that.

And the mother—What a noble type of motherhood she is! So strong, so loving, so good to look upon. Observe the fine shape of her head, with its simple coil, so becoming to this mother, her good strong features. See the beautiful lines of the neck, the broad shoulders, the good curve of the breast, the large useful hands. Everything about her bespeaks the strong, capable, reliable, loving mother.

What fine artistic judgment the artist has shown in the dress. Fashions may come and fashions may go, but that dress will be in good form forever. The graceful opening at the neck is just the most suitable possible to the face. The coloring of her dress and that of the baby, the position in which she holds the little one, and the way the light from the quaint lamp falls upon mother and child, unites them in a tenderly beautiful manner. The touch of light on little sister brings her into the picture most pleasingly.

Many otherwise excellent artists fail sadly when attempting to depict the human hand. But see how well we are shown the large, useful hands of the mother. See the dear little baby hand clutching the mother's wrist, and the tiny little fist held out in the energy of baby joy expressed by its exquisite baby smile. See sister's chubby fingers doubled up against the bowl.

The baby is the centre of everything in this household and the artist wants you to enjoy it as she does, so she has placed the lamp where its strongest light would fall on its cheek, its dear little nothing of a nose and its curling lips.

It is clearly the evening meal, and little sister has quickly finished her frugal portion, but mother in mother fashion is giving baby a tiny taste before eating a morsel herself.

Aside from the excellent drawing and composition the coloring is unusual and charming.

And you must not turn from the picture until you have observed the beauty of lines in it. The curves are many and charming, the vertical and horizontal line

of the table are repeated in the quaint lamp. But the lamp has curved lines as well and these with the curved lines of the bowl bring the table and all in as a pleasing part of the picture.

Notice the slanting line of the mother's arm repeated by the line of the left hand and continuing down the body of the baby. There are other repetitions in the picture which add to our pleasure. Find them for yourself, and after this, when you look at pictures, you will have a new source of enjoyment.

The original of this picture is to be seen in the Art Institute of Chicago. Be sure that you see it next time you come to Chicago.

I wish you might see *The Little Sister,* by this same artist. It shows you what a wonderful thing it is to be able to hold your own dear little sister in your arms.

If you could see *The Repast of the Family,* you would be charmed with the sincerity of the father, whose head is so reverently bowed as he asks the blessing. You would feel that religion is a very blessed thing in this home. You would feel that it was a home in which the life of father, mother, baby and sister was beautiful, even though the food is only bread and soup.

The pictures of this great American artist are highly individual; but best of all they make us love the greatest things in human life.

THE VICTORY OF SAMOTHRACE

Greek—Sculptor Unknown

The one hundred eighteen fragments into which this statue had been broken were discovered in 1863, on the island of Samothrace, by a Frenchman. He secured the pieces and sent them to France. There these fragments were cemented together, forming the statue as you now see it. Even without its head and without arms, it is one of the great art treasures of the world.

Look at the statue. What does the pressure of the garments against the body in front and the fluttering out behind indicate? You see clearly that the figure is represented as moving forward against the wind. But the erectness of the carriage shows that the figure is being borne forward.

Observe the strong, perfectly proportioned figure of this goddess, indicating health and physical perfection.

Notice the exquisite grace in every line of the wings, the body and the wind swept draperies.

When you visit an art gallery be sure to see the replica of this statue. Then take your time to look at it from every angle, and enjoy the beauty of lines in which this statue is unsurpassed.

Now for the interesting story of this statue. When it was restored it was evident that it was a Nike, the Greek goddess of victory, to whose help was accredited every success in battle. There were many battles over a long period of years which might have been commemorated by such a statue. Which one was it?

In addition to having a statue carved in honor of such a great event, it was also customary to strike off coins in commemoration. So the old coins were examined. One was found bearing the date 306 B. C. On the one side was a figure of this same statue standing on the prow of a vessel. This made it clear that when Demetrios Poliorcetes won the great victory over the Egyptian fleet in 306 B. C. and became King of Macedonia, he had this statue made. It was placed on a pedestal representing the prow of a vessel, and placed on the sacred island of Samothrace. This is a small rocky island in the Ægean Sea.

The coin showed the statue blowing a trumpet. Can you not imagine the statue in all its beauty clearly outlined against the blue of the sky, with the blue of the water at its feet, blowing the trumpet to announce the great triumph.

THE VICTORY OF SAMOTHRACE

To-day it stands at the head of a great stairway in the Louvre, poised on the original pedestal which was found in 1875 on the island of Samothrace, broken into twenty-three pieces.

THE STATUE OF LINCOLN

American—Saint Gaudens

The statue of Lincoln by Saint Gaudens is an example of the beauty of truth. It reminds us that a great thought, fine emotions shine through the clay of the human body and make it beautiful with the highest beauty of all, the inward beauty.

The original statue is beautifully placed against a background of trees in Lincoln Park, Chicago. The great Saint Gaudens looked at the real Lincoln and gave him to us just as he was, in the clothes he wore, in the familiar attitude of kindly, serious thoughtfulness. See page 198 for illustration.

It is all so natural, as if he had just risen from the chair, and stepped forward on the platform. His left hand is grasping the lapel of the coat, his right hand is behind him, the head is slightly bowed, and the eyes in thought. In a moment more he will speak such magical words as are in his Gettysburg Speech, or in the second inaugural address.

Here he is as Lowell has described him,

> "The kindly—earnest, brave, farseeing man,
> Sagacious, patient, dreading praise, not blame,
> New birth of our new soil, the first American."

The chair is a most artistic addition—the natural, not an artificial method of making the larger base when a statue represents a person standing alone.

The statue is perfectly placed. The great oval exedra thirty by sixty feet has a stone seat running around within it to which one may ascend by a series of broad steps, and rest and meditate and get to know our Lincoln better.

After Saint Gauden's original and pleasing custom, great characteristic words by Lincoln are made a natural part of the ornamentation.

"With malice toward none and charity to all, let us press forward to do the right as God has given us to see the right."

"Let us have faith that right makes might and in that faith let us to the end dare to do our duty as we understand it."

Augustus Saint Gaudens (1842-1907), with his mixture of Irish and French blood came to America when a little child. After six years of apprenticeship as a cameo cutter, he went to Paris and began the work of a sculptor. In the early eighties he began his remarkably original work in America with his statue of Farragut. When you go to the library try to see as many pictures as you can of the statues by this greatest of American sculptors. *The Puritan*, *The Shaw Memorial*, *The Sherman Statue*. *Grief* and his bas relief of Robert Louis Stevenson. You will find his work most original and varied.

His statues—for he was neither a talker nor a writer—have exerted the strongest influence in bringing about the great advance in American sculpture—making it more truly an expression of the life of the day.

SUMMARY OF ART PRINCIPLES

The art principles illustrated in these studies are:

I. Every picture has a Centre of Interest. It is shown:—
   1—By position.
      (a) In foreground.
      (b) Near centre of picture.
   2—By size.
   3—By coloring.
   4—By action.

5—By lighting.
6—By name.

II. Lighting.

Every picture should have one source of lighting only, so used as to emphasize the purpose of the picture, by bringing out prominently the centre of interest and subordinating the other parts of the picture.

III. Coloring.

Bright colors, especially a touch of red help to bring the most important part of the picture into prominence.

IV. Distance is expressed by:

1—Linear perspective,—that is, objects growing rapidly smaller in the distance.
2—Aerial perspective, shown by:
(a) Dimness of objects at a distance.
(b) Coloring—grays, blues, lavenders and purples show distance.

V. Space Filling.

What constitutes good space filling cannot be stated, but is strongly felt. *The Sistine Madonna* is a good example. If anything in the picture were omitted the blank space left would detract from the beauty of the picture. *Mother and Children* is a beautiful example of well filled space. Cut the picture and it detracts from its beauty. Add to the space on any side and it is less attractive. This is true of every really good picture.

VI. Unity.

Nothing should be in the picture which has not a distinct purpose. Nothing may be omitted which is essential to the expression of the artist's message.

VII. Construction.

VIII: Discrimination of textures. The skilful artist paints his various textures so that they are clearly recognized.

Every picture has some clearly defined arrangement, most frequently the triangular. *The Sistine Madonna, Mother and Children* and *The Gleaners* are illustrations, each of a different triangular construction. *The Madonna of the Chair* has the circular arrangement, *The Shoeing of the Bay Mare,* the rectangular.

As rapidly as a principle is learned it should be utilized in studying other pictures.

Studying biography is not picture study, but the children should learn the name of the artist—that is due to him for his kindness in giving this added treasure to the world. If there is anything in his biography which explains or illuminates the pictures, let the children know it.

They should know the nation of whose art the picture is representative, as there is a marked difference in the art of the various nations.

Take time to live with the picture. Don't try to complete a study of a masterpiece in a day. When teaching *The Gleaners*, for example, give the children time to verify, or even time to discover the great truths of perspective.

The location of the original should always be noted. If the teaching of the masterpiece is well done, the pupils are gaining a definite motive for travel and preparation for it, but the greatest result is the enrichment of their lives now and here.

SCHOOLROOM PICTURES

The study of pictures leads naturally and inevitably to the desire on the part of the children to have pictures on the walls of their schoolroom; and that in turn leads to the need of having the schoolroom walls made suitable for such decoration.

In this most commendable improvement of the schoolroom, there is need of wise guidance.

A schoolroom is pleasing when well colored, well lighted, and when the lines

and proportions are good. Such rooms are rare. But there are few rooms which may not be improved in these respects when betterment is concretely suggested.

The condition which is most easily bettered is the coloring. To get the walls calcimined with some soft unobtrusive color which will not lessen the needed light of the school room, not weary the eye, and which will make a good background for pictures, is the first consideration. The painting of the woodwork and the coloring of the walls must be in harmony.

Then study the spaces for a place or for places where a picture, a bas relief or a statue may be placed.

The blackboard is essential in the schoolroom. Usually the space above the blackboard is high, too high to make a really desirable position for a picture. So if possible, there should be left a side wall or a back wall where a picture may be appropriately hung.

Whatever part of the room is being considered for ornamentation, the first consideration is the space filling. That is, the size and shape of the picture which will be really pleasing in that space. If the place under consideration is above the blackboard, it is essential that the width of the picture should be much greater than the height.

If the space to be decorated is high and narrow, the picture selected for it must in proportion be high and narrow.

Spaces between windows are small but the lighting is bad, so that ordinarily they are valueless as places for pictures.

From the consideration so far, it is clear that the schoolroom spaces which are suitable for pictures are large spaces and demand large pictures, that the proportions of the picture may be suited to the space.

It is tantalizing to sit in a room with a picture which cannot be easily seen. Therefore, a picture must have good carrying power so that it may be readily seen from all parts of the room. The carrying power of a picture depends upon simplicity. *The Hounds in Leash* is a good illustration. In this there are just the man and the two hounds. Carrying power depends upon the depth of the picture. The poor reproduction of a really suitable picture may be rendered useless for schoolroom decoration because of this. The important part of the picture does not stand out clearly, the less important part is not kept in subordination as in the original. It is all on a dead level of mediocrity.

Keeping these two principles in mind, of space filling and carrying power, we must next consider the suitableness of the subject. Many great masterpieces are unsuited for the schoolroom. Some, because they do not reproduce so as to make a pleasing decorative effect. *The Sistine Madonna* is a good illustration. As a wall decoration, the effect of the black or brown reproductions is spotty and not pleasing. But the detail of the upper portion of the mother with the child is very satisfactory.

Having found the large, well-made reproduction which you wish to place in the particular space, there are two things yet to be considered. First, the lighting. Does the light fall on this space in a way to intensify the high lights and the shadows, or does it flatten the picture? The intensifying effect is produced by having the light fall upon the picture from the same direction as that in the picture itself. To illustrate, *Shoeing the Bay Mare* should receive the light from the left, *Mother and Children* from the right.

The other consideration is the framing, which should be simple and unobtrusive, repeating some important tone in the picture itself.

One picture which fills these demands is more decorative than a large number which fail to do so.

When the picture is so selected and so placed, it should be like an open window in the wall, trailing the eye and the thoughts to the vision of beauty it suggests.

ART

PAINTING

Painting, the art of representing objects in colors on a surface, began at least as early as the Egyptians, for their work can still be seen on the walls of their templed ruins along the Nile and on many a mummy-case. These are crude, to be sure, and mainly characterized, as to portraits, by being drawn in profile. The Egyptians used but few colors and were not given to mixing them.

In Greece painting seems to have reached a high degree of perfection, but few examples are left today to bear this out. If the writers of that period, however, are to be believed, Grecian painters rank with the greatest of the Renaissance. The testimony of such men as Pliny, for example, rather than any extant works, have given renown to the names of Appelles, Parrhasius, and Zeuxis.

Roman painting was but a debased Greek. From history we learn that Rome at the height of her glory was full of artists; but they were, no doubt, of mediocre ability. No great names or examples have come down to us. The excavations in Pompeii probably show some of their best work. The painting of today had its beginning with the early Christians and some of their first efforts may still be viewed in the catacombs. These were followed by the mosaics found in so many of the churches of the fifth to the tenth centuries and which serve as a connecting link with modern painting beginning with the year 1200.

STUDIES IN ITALIAN PAINTING

1. Early Christian, 1200-1400.
   - a. Origin dates back several centuries in crude attempts of Christians to represent symbols of their religion. These symbols, prescribed by church councils, stiff and unexpressive.
   - b. Florence—the city that gave birth to and matured the natural in painting. A republic; the people as a whole keenly alive to the possibilities of art and encouraging it. What evidence of this do you find in the life of Cimabue? (Note the triumphal procession that accompanied his Madonna to the church of Santa Maria Novella.)
   - c. First attempt at naturalism by Cimabue of Florence. Note the beauty of his character. Compare the somewhat lifelike expression and action in his pictures with the stiff and wooden figures of earlier paintings.
   - d. Giotto—What was his relation to Cimabue? In what cities did he paint? Compare his breadth of interest, as shown in his work, to that of Cimabue. Ruskin says: "Cimabue painted the Virgin, the Holy Babe, and Saints; Giotto painted Papa, Mamma, and the Baby." Comment on this. Do you see any attempt at dramatic expression in his paintings? How did he paint feet and hands? What Saint was he especially fond of representing on canvas?
   - e. General characteristics of this period. Subjects are religious and theological; a few altar-pieces, but mainly a series of frescoes on related subjects; painting done almost exclusively for churches and monasteries.

f. Correlated Poetry,—Mrs. Browning's *Casa Guidi Windows;* Browning's *Old Pictures in Florence,* Longfellow's *Giotto's Tower,* passage in Dante's *Purgatory* (XI, 944).

2. EARLY RENAISSANCE, 1400-1500.

a. Development of painting furthered by the study of Grecian statuary, a knowledge of anatomy, and the encouragement of rich patrons.

b. Two schools in conflict—the mystical or ideal, holding to religious subjects, treated in a spiritual and conventional manner; and the naturalistic, striving to present on canvas men and women as they appeared in real life. Both schools, however, held closely to religious subjects.

c. The mystical school represented by Fra Angelico. Note the purity and serenity of his life, and how they are reflected in his works. He painted the walls of the cells of what monastery? Could he, or did he paint the human body? Are his draperies graceful? Note his favorite subjects; the grace, beauty, and spiritual serenity of his angel faces. Study his works in chronological order, and note that his later work becomes more realistic and the faces more individual. What were his favorite subjects?

d. Masaccio, the first great realist. Study his paintings of the Brancacci Chapel in the Monastery of the Carmine, Florence. Note in his *Expulsion from Eden* the dramatic and expressive handling of the nude. This chapel became the school of Leonardo da Vinci, Michelangelo, and Raphael. What could these artists have learned from these paintings?

e. Fra Filippo Lippi—by nature a realist, by early education confined to religious subjects after somewhat the old manner. Compare his *Madonna of the Woods* (Berlin), with his *Coronation of the Virgin* (Academy, Florence), and his *Madonna of the Uffizi* (Florence), and notice the difference in spirit, the spiritual vs. the worldly. Fra Lippi the first to paint the Madonna of the individual type. Compare his angels with those of Fra Angelico.

f Botticelli—belongs both to early and High Renaissance, a connecting link. Earlier works Christian, later Pagan in subject. One of the first to use Pagan subjects. Make a list of his paintings under each head. Note the graceful curve of the neck characteristic of his women. Show in his pictures that he excelled in depicting or suggesting motion.

g. What development do you note in the paintings of this period? Is it all for the better? Make a list of minor painters of the period.

h. Correlation of painting and poetry—Browning's *Fra Lippo Lippi;* his *Pictor Ignotus,* dealing dramatically with the conflict between the mystical or religious and the realistic; Lowell's *Masaccio;* Rossetti's *Spring,* by Botticelli.

3. THE HIGH RENAISSANCE, 1500-1600.

a. General characteristics of the period—full flood of life, joy in living, swinging away from the medieval religious devotion to worldliness, revival of learning, increased knowledge of the classic in art and literature.

b. Leonardo da Vinci—called a universal genius: why? In how many lines of activity did he excel? In what cities did he live? Compare the spiritual beauty of his *Madonna of the Lily* (Florence), with the sphinx-like poise and worldly self-assurance of his *Mona Lisa* (Louvre, Paris). What can you say of the "Leonardo Smile," as seen in the *Mona Lisa,* the *St. John of the Louvre,* and other pictures? Study a good print of *The Last Supper* (Milan). Comment on the composition of the picture—that is, the grouping of the figures; also on the expression of Christ's face and on the individuality of the disciples. Subtlety and profound knowledge of the human soul characterize Leonardo's paintings.

c. Michelangelo—strongly influenced by the study of ancient statuary in the gardens of his patron, Lorenzo di Medici. Great in what three lines of art? What great works in painting did he execute at Rome? Under whose patronage? The leading characteristics of his painting—stupendous imagination and strength of execution. Note other characteristics. Was he greater as painter or as sculptor?

d. Raphael—a pupil of Perugino, later worked in Florence, where he felt the influence of Masaccio and Leonardo da Vinci; later called to Rome, where he learned still more from Michelangelo. Consider his works in chronological order and try to note these influences. Note some points of contrast between his life and work and those of Michelangelo. The greatest painter of the Virgin and Child. Compare his *Sistine Madonna* (Dresden) with his *Madonna of the Chair* (Florence). One is the highest type of the spiritual, the other of the earthly. Whether in mother or maid, the leading characteristics of his work are poise, harmony, perfection of form, exquisite grace, dignity of character.

e. Andrea del Sarto—known as "the faultless painter," because of the perfection of his technique. Fell short of the greatest because of lack of dignity and force of character, hence his failure to form the noblest conceptions. Can you feel this in his work? What do you find in his life to substantiate this judgment? What charm do you feel in his paintings? Compare the shadowy outlines of his figures with the clear-cut and firm outlines of Raphael's. There is a certain peculiarity in Andrea's coloring. Find out what it is.

f. The Venetians. The greatest Venetians belong to the High Renaissance. The greatest of these are Titian, Tintoretto and Paola Veronese. Their work is characterized by splendid architectural backgrounds, with some landscapes; large, handsome men and women; magnificent costumes; rich jewels; great feasts; rich, warm color; in the main worldliness, though now and then real religious feeling. Study the pictures of the artists and try to see all this. Make a list of paintings by each artist under the following heads: Religious, mythological, historical, portraits. Try to find in Tintoretto's pictures his preferences for dramatic moments; in Veronese's the splendor of Venetian life; and try to appreciate the harmony and poise of Titian's work relating him to Raphael and Shakespeare. What relation can you see between the magnificence, wealth, and splendor of Venetian life, the splendid coloring of the Venetian sky and sea, and Venetian painting?

g. Correggio—called the "Ariel of painting," is sometimes compared with Shelley, the poet. Can you see why? Compare his soft cloud effects, his delicate lights and shades, his graceful and exquisite figures, with the heavier and more dramatic effects of Michelangelo, the poetic grace of Botticelli and the fine poise of Titian.

h. Correlation of painting and poetry—Browning's *Andrea del Sarto,* and *The Bishop Orders His Tomb;* Longfellow's *Michelangelo;* Whittier's *Raphael;* Arthur Symond's *Mona Lisa;* Wordsworth's *The Last Supper,* by Leonardo da Vinci; Shelley's *The Gorgon Head,* by Leonardo da Vinci; Rossetti's sonnet, Leonardo's *Our Lady of the Rocks.*

4. Decadence of Italian Art, 1600.

Approximate perfection having been reached in Italian painting, it began to decline—that is, so long as artists were striving to seek a means of expressing what burned in their souls, art was advancing; having mastered technique sufficiently to do this, having reached the consummation of this balance between great conception and great execution, the artist began to imitate instead of to create, and a decline in art ensued. Perhaps the greatest painters of the decadence were:

a. Guido Reni, who painted the beautiful *Aurora* (Rome). Note the splendid coloring, the strong action, the grace and the consummate beauty of the figures. Find out which figure is Aurora, which is Phoebus Apollo, and which figures represent the Hours.

b. Guercino, whose *Guardian Angel* at Fano is noted for its purity and spiritual calm.

Make a list of other paintings of Italian decadence. Show the correlation of painting and poetry in Browning's *Guardian Angel* and *Beatrice Signorini.*

SOME OTHER SCHOOLS OF PAINTING

FLEMISH AND DUTCH. The greatest Flemish and Dutch painters are Franz Hals, Ruysdael, Van Eyck, Van Dyck, Rubens, and Hobbema. Their work is characterized especially by faithfulness to nature in minute details, by scenes in lowly life, by picturesque interiors, and by landscapes of a flat country, often with windmills. Rubens, the richest colorist, and Rembrandt, the greatest of them all, are among the noblest painters of all time. Compare the latter's paintings with those of Rubens and it will be noted that Rembrandt's paintings seem to stand back of the frame, are subdued in coloring, and are characterized by marked lights and shades and by the light centering on a definite point. What about Rubens' paintings?

FRENCH. Unlike the Flemish and Dutch school, the merit of the artists of France lies more in composition and design than in coloring. One of the greatest illustrators of literature is Doré. Note, for example, with what vivid and splendid imagination he interprets such intense and picturesque writings as Dante's *Divine Comedy*, Milton's *Paradise Lost,* Tennyson's *Idylls of the King,* and Coleridge's *Ancient Mariner.* Troyon was the great French painter of animals. Compare his work with that of Landseer. Of the Barbizon group the best known are Millet, Breton, Rousseau, and Corot. Compare the minutely finished, somewhat formal landscapes of Rousseau with the poetic, impressionistic paintings of Corot. Professor Muther writes: "In Rousseau a tree is a proud, toughly knotted personality,—a noble, self-conscious creation; in Corot it is a soft, tremulous being, rocking in the fragrant air, in which it whispers and murmurs of love." Try to feel this difference. Compare the heavy and pathetic aspects of peasant life on the canvases of Millet with the happier and more idealistic presentations of Breton.

Impressionism and traditionalism have both found strong defenders and representatives in the later forms of French art.

ENGLISH. 1. Before the eighteenth century the great painters of England were foreigners employed, in the main, by the Court. These were Holbein, Van Dyck, Zuccaro, and Kneller. What reasons can you give for the late development of painting in England? Compare with the early development of literature, especially of the drama. Make a list of portraits by Van Dyck. Note the characteristics of his style.

2. The Eighteenth Century painters are all eminent. Hogarth was a social reformer—a moralist and satirist. How may this be seen from his paintings? Try to find out the relation of his paintings to the literature of his day. What difference can you see in the styles of Reynolds and of Gainsborough? Name a few paintings by each—portraits of men, women, children, common life, landscapes.

Note.—Some of Reynolds' most widely known works are: *The Age of Innocence,* the *Infant Samuel,* and the great window in New College chapel, Oxford. Professor Gensel, in answer to the question how Reynolds and Gainsborough compare with the greatest portrait painters of earlier centuries, says their relative importance is and will probably remain an open question, and then adds: "We experience before their pictures that pleasure which leaves no room for further desires. Reynolds' 'Nelly O'Brien,' with her bewitching smile and her mystery due to the shadow which is thrown by her hat, impresses us as do the most beautiful women by Rembrandt."

3. The principal painters of the first half of the nineteenth century were the landscape artists—Constable and Turner. Can you see any relation between the painting and the poetry of the period? (Wordsworth, Byron, Shelley, and others were interpreters of nature.) Compare some of Wordsworth's quiet landscapes with Con-

stable's; and Shelley's fine sky and sea effects—as in *The Ode to the West Wind*—with Turner's sky and sea effects. Compare mountain treatment by the poets with that by Turner.

4. Many English painters of the latter half of the nineteenth century belonged to the pre-Raphaelite school,—notably Rossetti, Holman Hunt, Millais, and Burne-Jones. Their aim—to be sincere and true to nature, as were the Italian painters before Raphael. Much of their work illustrates poetry and romance; some of it is on religious subjects. Classify their paintings under these heads. Which of these painters seems least affected,—most direct and simple in his presentation of life? Which is noted for his love of Dante? Which dealt most in medieval romance? What English painter made a specialty of animals? Of classified subjects?

Watts was a dreamer and myth-maker and a painter of allegory. Note how he presents Hope (why blind?), Love, Death, etc. Discuss his mythical conceptions.

AMERICAN. American painting holds a high place in modern art, some of the greatest names in modern painting being those of Americans. What reasons can you think of why America should produce great artists? Why are their leading characteristics freedom from the restraints of tradition, sincerity, sound technique, a genuine and frank treatment of many subjects, beauty of a high character, and especially fine landscape painting?

Four names stand out in the earlier life of the republic as especially great—Benjamin West, John Singleton, Copley, and Gilbert Stuart. Which of these was a Quaker? Which painted portraits of the most presidents? Which was most British in sympathy? What notable work did these men do in England? What is West's most noted painting? Stuart's?

George Inness was an appreciative interpreter of the quieter phases of nature. Try to observe this in his pictures. He interpreted nature with a true poetic soul. He was leader of a school of nature painters.

John Singer Sargent exhibited great dignity and power in his frescoes in the Boston library, especially those of the prophets. Which of these prophets seems to you the greatest creation? Can you see truth and beauty in his portraits? In his portrait of Ellen Terry as Lady Macbeth can you imagine the dramatic moment portrayed?

James McNeil Whistler was more of a poet and dreamer than Sargent. His technique was influenced by the art of Japan. "He was a colorist, not in the sense of the man who combines bright hues in pleasant harmonies, but of him who combines the greatest varieties of shades of a few subdued hues in one grand chord." Try to imagine and feel this while looking at reproductions; try to see and feel it when you see the originals.

John W. Alexander may be studied in his series of frescoes in the Congressional library, Washington, representing *The History of the Book.* Note the dignity of the figures, the fine color tones, the poetic imagination at work in the conceptions.

Study Edwin Howland Blashfield's work in the dome of the Congressional Library at Washington, and comment on it.

Note the splendid imagination and interpretative work of Edwin Austin Abbey in the *Holy Grail* series of the Boston Public Library. Study these in connection with a translation of Wolfram von Eschenbach's *Parcival,* one of Wagner's operas, and Tennyson's *Idylls of the King.* Study also Abbey's illustrations of Shakespeare. Try to discover the dramatic moments presented.

Do you feel that, in his illustrations of *The Rubaiyat* of Omar Khayyam, Elihu Vedder interprets the poet well? Can you realize the weird and mysterious charm of his work? What peculiarity in technique emphasizes this?

John La Farge was especially fine in painting stained glass windows. Study those which are his work and note the general nature of the subjects and of the style. Study in the same way his decorative painting in churches.

SISTINE MADONNA—Raphael

THE LAST SUPPER—Da Vinci

HOW TO STUDY A PICTURE

Look at a picture carefully and see what it has to tell, what it tries to tell. Try to see in each picture that which the artist intended and desired to put there. Look carefully for the inner meaning. Try to feel what you imagine the artist felt when painting the picture.

Art is an interpreter of nature, of life. Learn its language. Paint is the material means by which the immaterial may be expressed. Notice more what is painted than how it is painted. Express in notes what the artist felt and what you feel in looking at the picture. Find just the appropriate adjectives to express shades of feeling. Is the artist's subject or theme worthy? "The finest art is that which speaks of virtue, truth and immortality." The higher and nobler the ideas and the moral sentiments they convey, the greater are the paintings as works of art. Poems and pictures which make us think high thoughts and feel grand emotions belong to the nobility of art. "Art is the uplifting of the beautiful so that all can see and enjoy."

Some painters know the language or technique of art thoroughly, but do not know what to say with it. They have the skill to paint, but no great thoughts to express. Which is better, beautiful ideas with poor technique, or perfect technique with poverty of thought? In considering technique, note especially these points: drawing—faulty or true, clearly marked or indistinct; coloring—rich and mellow or thin and weak, harmonious or in too sharp contrast; perspective—good or faulty; composition—grand, excellent, symmetrical, natural; atmospheric effects—hazy or clear, poetic or commonplace, mysterious, mystic, weird; handling of light and shade—marked contrasts, or rather even diffusion; fine handling of shadows. Does light center on one point?

In the study of the artist's conception, dwell on thought, feeling, imagination, force; are these adequate, or not, to the subject in hand? Note how his conception compares with that of other artists in dealing with similar subjects.

Learn the distinct style and individuality of each artist, as you would that of a musician or a poet. Ask yourself, is the style simple and natural, or somewhat pretentious and affected? Does one type of Madonna, or Babe, or pose, or composition, prevail? What is especially distinctive in each artist's work? For example, the pronounced anatomical effects of Michelangelo, together with his grand conceptions; the Leonardo da Vinci smile, the silvery-gray atmosphere of Andrea del Sarto, the Burne-Jones heads, the mysterious spiral light effects of Whistler. Learn to recognize at sight—even from a print—every important painter.

A STUDY OF LEONARDO DA VINCI'S "LAST SUPPER"

1. When and where painted—ordered in 1496 by Leonardo's patron, Lodovico il Moro, Duke of Milan, for the refectory of the Monastery of Santa Maria delle Grazie.

2. Size—the figures are twice life size.

3. Source of subject—John 13, the account of the Last Supper and the institution of the Eucharist.

4. Dramatic moment—chosen by artist—when Christ utters the words, "One of you shall betray me" (John 13:21), and the apostles start in amazement questioning Christ and each other.

5. Description of the Picture:

(a) The Background—the interior of a room, simple but spacious, with several pillars, beyond which through open windows the distant landscape gives a fine perspective, thus lending to the scene a touch of fresh nature and pure air.

(b) The Foreground—a long table, chaste and pure in its white linen cover, slightly ornamented. Seated, or half standing on one side and at the two ends of the table, are Christ and his twelve Apostles.

(c) The Central Figure—Christ seated, with six apostles on each side.

(d) The arrangement of other figures is in four groups of three each.

(e) The first group on Christ's right consists of John, Judas, and Peter. Comment on the expression of hands and face of each.

(f) Study in the same way the other groups: the first on the left is made up of James, Thomas, and Philip; in the second group on the left are Matthew, Thaddeus, and Simon; in the second group on the right are Andrew, James the younger, and, at the end of the table, Bartholemew.

(g) Study not only the expression of hands, body, and face of each apostle, but also the special expression of each group, and the linking of the groups in unity of feeling as well as in a fine unity of composition.

(h) Unity—secured by the concentration of attention on Christ. This is obtained in part by the attitudes of the bodies, in part by the expression of the hands, but mainly through the expression of the faces.

(i) Character presentation. Leonardo here shows himself a master of psychology. The divine light in the face of Christ emanates from the central figure like a benediction—pathetic, tender, holy. In the most important group, to the right of Christ, may be seen three distinct and intensely interesting studies—the tender and affectionate John, the best beloved of the Master; the indignant and impetuous Peter, whispering to John a request that he question Jesus; the guilty, sinister Judas, who in his start of surprise and fear has just upset a saltcellar and is reaching toward the dish in which he is about to dip and thus give his Master the occasion of pointing him out as the man of guilt: "It is the one that dippeth with me in the dish."

6. General characteristics. Nobility of conception, understanding of human nature, a deep comprehension of Christ, and simplicity of handling characterize this great masterpiece.

7. The present condition of the picture. It is at present in a faded and worn state, having been many times restored by unskilled hands. In spite of this, however, it retains a certain impressive grandeur and nobility. Reasons for its bad state of preservation are found in that Leonardo experimented with it by applying oil directly to the wall instead of using distemper; in the dampness of the old monastery, and in the mutilation of the picture by copyists, and by the lapse of time. A door was cut through it in the 17th century, and the refectory was used as a barrack during the French and Italian wars.

8. QUESTIONS.

(a) Compare with other pictures on the same subject by other artists, especially those by Andrea del Castagno and by Andrea del Sarto.

(b) How do you account for the great popularity of this picture, and for the general acceptance of the head of Christ as typical?

(c) Study the presentation of each disciple, and compare with the way in which each is presented in the Bible.

(d) Try to enter into the feeling of each disciple as pictured by the artist.

(e) Try to comprehend something of the benignity and graciousness of Christ and to realize how it springs from the divine within him.

SCULPTURE

ANCIENT SCULPTURE

Plastic art is so closely associated with the art of building that what is said about the influences of the one applies equally to the other.

Egyptian. The sculpture of the Egyptians lacks variety, but possesses strength and vigor. The first work was realistic in the extreme (see the statue at Sakhara),

and subsequent reliefs and statues showed scarcely more intellectual power. The work, however, was superb, and shows both dignity and symmetry. Among the best known sculptures are the reliefs in the Rock Temples at Karnak and other points, from the Capital Denderah, Seated Figures of the Pharaohs, and the Sphinxes.

Asiatic. The Assyrian sculpture shows little attempt at idealization. There are few statues, most of the work taking the form of reliefs. In Persia and Nineveh sculpture evinces the practical tendencies of the people. Examples: Relief from Persepolis; Façade of Royal Tombs, Persia; Statues in the Cave of Elephanta, India.

CLASSIC SCULPTURE

Greek. The sculpture, like the architecture, of the Greeks was characterized by great beauty and refinement. The Ionic artists preferred grace; the Doric, force. Famous examples are: The Lion Relief, Gate of Mycenae; the Caryatids of the Erechtheum; the Bronze Head of Zeus; the work of Phidias in the Frieze of the Parthenon (notably the Statue of Athene); Hera by Polycletus; The Faun of Praxiteles; the Disk Thrower and Marsyas, by Myron; the Laocoön and the Apollo Belvedere, Rhodian School; the Dying Gladiator, and the Venus of Milo.

Etruscan. The plastic art of the Etruscans was wrought in metal, baked clay, terra cotta, and bronze, and consisted of decorations for tombs and statues, such as the statue in the Temple of Jupiter Capitolinus, and of The Etruscan Orator.

Roman. As the Greeks were beauty-loving, the Romans adored splendor. Delicacy, harmony, and technique are seen in their sculpture. Examples: The Venus de Medici, by Cleomenes; the Caryatids of the Vatican; Nile Surrounded by Children; Ariadne, and the Statue of Augustus, in the Vatican; Reliefs on Trajan's Column and on the Arch of Constantine; the Battles of Diocletian; the Temple of Vesta; the Pantheon; the Sarcophagus in the Capitoline Museum.

MEDIEVAL SCULPTURE

Early Christian. The plastic art of the early Christians was more crude even than their architecture. Owing to their abhorrence of idolatry, very few statues were made. The best work was: Ornamentations for San Apollinare, Capitals for Ravenna and St. Sophia, and a Sarcophagus for the Church of St. Ambrose. The later Christian Art was influenced by the Byzantine style, which was elaborate and gorgeous in execution. Example: Ivory Carvings on the Throne of Bishop Maximiam.

Mohammedan. Little ability in sculpture was shown by these people. As illustrations see the Capital, Alhambra; and the Marble Screens, Taj Mahal.

Romanesque. Characterized by richness of ornament. Examples: Baptistery, Florence; Ivory Relief, Paris; Hunting-Horn, Prague.

Gothic. The Gothic sculpture, like the Gothic architecture, was a modification of the Romanesque. Youthful forms are oftenest represented, marked by grace and purity of style. Examples: The Christ in the Cathedral of Amiens; Figures and Relief from Rheims; Statues from Strasburg; Cain and Abel, Orvieto; Relief, The Betrothal of the Virgin.

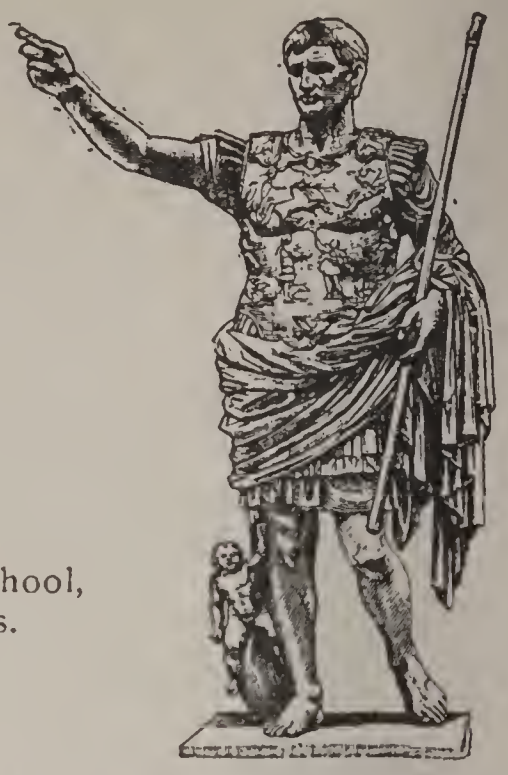
Renaissance. Characteristics: Lifelike action, portrait statues, realism. Examples: Ghiberti's Gate; Baptistery, Florence; Madonna of Luca della Robbia; Reliefs of Donatello, Santa Croce and Padua; Statue of Gen. Bartolommeo Colleoni, Venice; Moses, Michelangelo, Rome; Relief from Bronze Door, St. Mark's.

AMERICAN SCULPTURE

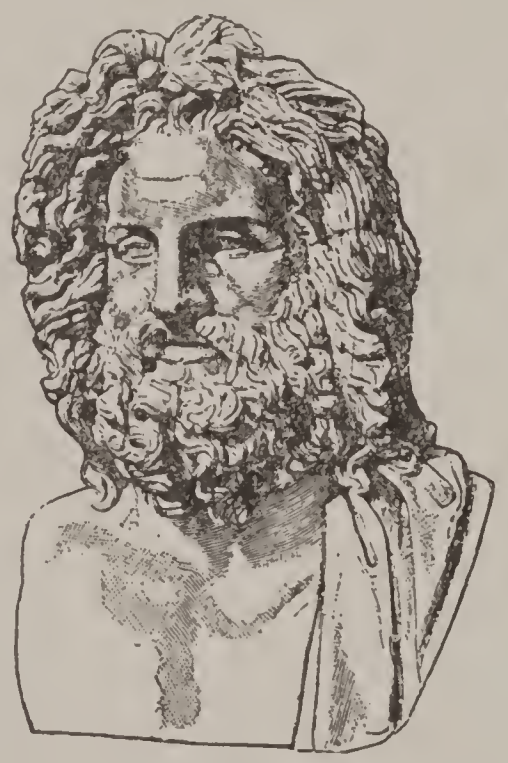
The early work of American sculptors was a combination of Classicism and Naturalism, with few exceptions pedantic and sentimental. Many of the sculptors went abroad to study, and often remained there. After the Centennial Exhibition of 1876, plastic art took on a new and higher character, and sculptors worked more on subjects at home. With St. Gaudens it became thoroughly original and American

Diana.

Female head of the Athenian school, supposed to be by Praxiteles.



Augustus as general.



Bust of Zeus.

The Discus Thrower.

The Wrestlers.

Sophocles.

GREEK SCULPTURE.

Examples: The Greek Slave, Hiram Powers; Statue of Chief Justice Taney, William Henry Rinehart; Bronze Doors of Capitol, Statue of Liberty, and Equestrian Statue of Washington, Thomas Crawford; Equestrian Statue of General Scott, Henry Kirke Brown; Civil War Group, Augustus St. Gaudens; The Greeley Statue and Beecher Statue, John Quincy Adams Ward; Alma Mater, Daniel Chester French; Lost in a Blizzard, and A Cowboy Mounting, Solon Hannibal Borglum; The Stone Age, John J. Boyle; The Chariot Race, F. G. R. Roth. Among living sculptors the most prominent is perhaps Lorado Taft. In 1893 he won the designer's medal for decorating the buildings of the Columbian Exposition at Chicago. He has been an instructor at Chicago Art Institute since 1886, and has lately published a history of American sculpture.

AUGUSTUS SAINT GAUDENS

The highest representative of American Sculpture is Augustus Saint Gaudens, and to his efforts is due largely the formation of an American School of Sculpture.

Life. Born in Dublin, Ireland, 1848. His father was French, his mother Dutch. At thirteen he was apprenticed to a cameo cutter. He studied at Cooper Union and at the Academy of Design. Twice he went to Paris for study, and he spent three years in Rome. He received many appointments and commissions, was on the jury of the Universal Exposition, 1878, and did excellent service on the Park Commission of Washington, D. C. Because of a nervous temperament he loved retirement, but he was public spirited and always helpful. He felt great sympathy for young sculptors and loved to encourage them, once going some distance to tell a young man what he thought of his beautiful work. His modesty, gentleness, and largeness of mind greatly endeared him to his contemporaries. Degrees were awarded him from Harvard, Yale, and Princeton. He received a special medal at Buffalo from his fellow artists, and a medal of honor at Paris. He enjoyed caricature and was a good storyteller. He formed a warm friendship with Joseph M. Wells, architect. His last days were a struggle against sickness and pain, during which he was invariably cheerful and courageous. He died at Cornish, N. H., Aug. 3, 1907.

Style. His style is a blending of polish and freedom; he excelled in delineation and in the idealization of character, which he portrayed in The Puritan and in his statue of Lincoln. His medallions are delicate and refined, and all his work shows thoroughness. He gave careful thought to the relation of figures and to background. He was thoroughly modern and American in spirit.

Works. Some of his most noted productions are: Hiawatha; the Sherman Equestrian Statue (Central Park, New York); Statue of Farragut (Madison Square, New York); Statue of Lincoln (Lincoln Park, Chicago); the Bas-relief, Adoration of the Cross by Angels (Hartford); the Shaw Monument (Boston); Statue of Diana (Columbian Exposition, Chicago). Some of his other productions are: Statue of Peter Cooper, erected by citizens (New York, Cooper Union); The Children of Jacob H. Schiff, New York; groups at entrance to the Boston Public Library. Reliefs: Robert L. Stevenson; The Puritan, Springfield, Mass.; Family of Richard Watson Gilder; Francis D. Millet and a Caryatid, house of Cornelius Vanderbilt; Grief, on the Adams Monument, Rock Creek Cemetery, Washington.

THE CIVIL WAR GROUP

Saint Gaudens is the sculptor of the Civil War. The statues of Civil War heroes—Farragut, Lincoln, Logan, Shaw, Sherman, are his best work. Farragut, Madison Square, New York, is the first statue he was commissioned to make, and is the best figure of the Admiral known. Energy is the principal characteristic, with comprehension of "quarter-deck spirit." The pedestal is beautiful in its ornamentation.

The Lincoln statue in Lincoln Park, Chicago, is beautiful in its simplicity and

lifelikeness. Lincoln is standing calm and dignified. One hand grips his coat, and his head is bent in the serious attitude so habitual during the dark days of the war period. Saint Gaudens gave much thought to the arrangement of the pedestal, which was designed by Stanford White. His conception of Lincoln has been compared with Lowell's in the latter's *Commemoration Ode.*

Gen. Logan, or "Black Jack" Logan, is the subject of an admirable figure in Grant Park, Chicago, in the crypt under which he is buried. The General, bearing a flag in one hand, is mounted on a spirited horse. The interest of the statue is centered in the action. The monument to Robert Gould Shaw, in front of the State House, Boston, was in progress of execution for many years. It is done in bronze. Shaw has his colored troops about him, and a spirit of excitement and devotion marks the work. In the face of the leader, and in the figure of the angel, there is sadness. The whole possesses unity of composition.

The statue of Gen. Sherman, Central Park, New York, is an example of most painstaking workmanship. (Compare other equestrian statues, as Joan of Arc by Dubois, the Steeds of the Parthenon, the Horses of St. Marks, Marcus Aurelius at Rome.) The chief characteristics are dignity, life, and idealization of commonplace themes. The figure of Victory moving ahead of the General adds to the general impression of onward movement.

ARCHITECTURE

A sketch of the meaning and general history of Architecture is given in the first volume. It remains to give a working outline of the various periods, including characteristics, best examples, and chief architects.

The three general divisions of Architecture—Ancient, Medieval, and Modern—correspond with the classification of history. The Egyptians and Asiatics (Syria and Mesopotamia) made the most important contributions to this branch of art in the earlier part of the first period; the Greeks, Romans, and Etruscans in the latter part. In all their works may be read the history of their physical environment and religious beliefs.

Egyptian. The Architecture of the Egyptians took the form of burial places for preserving their mummies, or of palaces, monuments, or temples; as, The Pyramids of Gizeh; the Tomb of Cheops; the Sphinx; Obelisks, and the Temples of Karnac, Horus, Philae, and Elephantine. The work is characterized by massiveness and grandeur without progressiveness. Most of the work was done in stone, but brick and clay were also used. (See ART.)

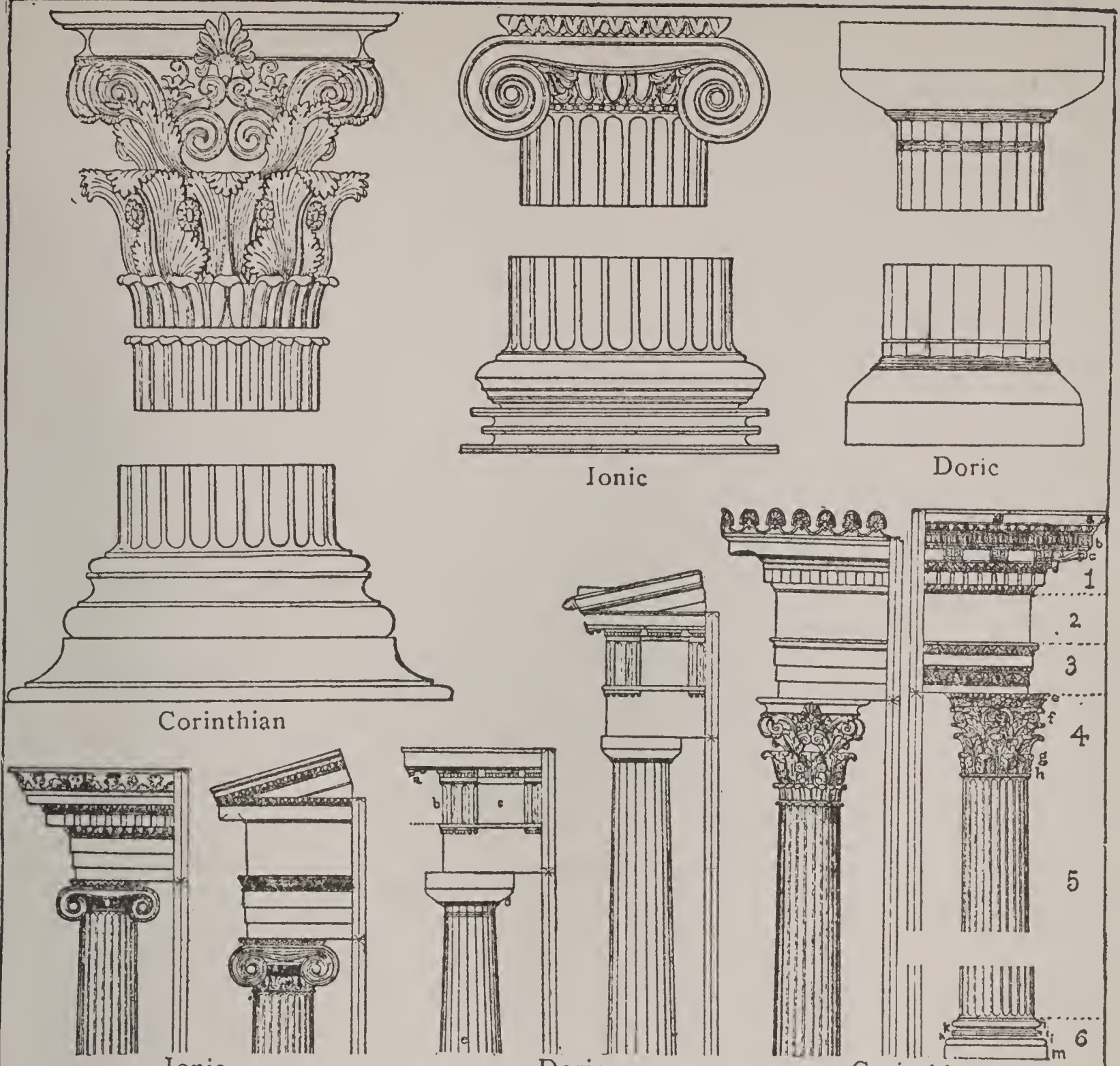
Asiatic. The Architecture of the East, like that of Egypt, displayed colossal proportions and simplicity of design. It took the form of palaces, tombs, and temples. Examples: Palace of Sargon, Assyria; Tomb of Cyrus, Persia; Rock-Cut Tomb at Myra; Cashmere Temple; Tomb of Absalom.

CLASSIC ARCHITECTURE

Greek. As exponents of Classic Architecture the Greeks stand first. Their standards furnished a basis for all succeeding art, and made the world eternally their debtor. Their climate and isolation influenced greatly the character of their architecture, making it at once artistic and original. Beauty, richness, and refinement mark their work. Their highest development found expression in temples, and in other works of public interest. The construction was simple—two uprights carrying a crossbeam. (For more complete description see ART.) Examples: The Temples of Neptune; Theseus; Nike Apteros; Zeus; Gate of the Propylaea at the entrance of the Acropolis; The Erechtheum; The Acropolis, or citadel of Athens, contained as first among its magnificent buildings the Parthenon, or temple of Athene, goddess of the city. This was the work of Ictinus and Callicrates. This temple is the best

STATUE OF LINCOLN—St. Gaudens

SAINT MARK'S CATHEDRAL, VENICE



Ionic Doric Corinthian

GREEK

1. Cornice.
2. Frieze.
3. Architrave.
4. Capital.
5. Column.
6. Base.

EGYPTIAN GOTHIC

COLUMNS AND ENTABLATURES

example of the strong, austere Doric style. The weaker style of the Ionic order prevails in the Temple of Pallas Athene, at Priene, and the Corinthian—a modification of the other two orders—in the Monument of Lysicrates.

Roman. Realistic and dominating by nature, the Romans showed less originality in their Architecture than the Greeks, from whom they borrowed. Grandeur of design, variety, and correctness are characteristics of this style. The association of the column with the arch was the distinctive feature of Roman architecture. Examples: The Colosseum; Arch of Titus; Temples of Baalbec; Trajan's column; House of Pansa at Pompeii; the Pantheon.

MEDIEVAL ARCHITECTURE

Early Christian. When Constantine adopted Christianity as the religion of the Roman Empire, the character of art was changed, adapting itself to the changed conditions. Christian Architecture stands between Pagan and Medieval Architecture. The chief monuments are the Catacombs, or underground burial places of the Christians (St. Calixtus), Basilicas, and Mausoleums. The prototypes of the Christian basilica were very probably the old Pagan basilicas used for trade and justice, and the basilica-like halls in private dwellings, where the Christians held their meetings. (See BASILICA.) The earliest buildings were crude and inharmonious, but gradually the work became more artistic and original. Examples: Church of St. Paul, Rome; St. Peter's; Santa Maria Maggiore; Church of San Vitale; St. Sophia at Constantinople; Mausoleum of Theodoric.

Mohammedan. The buildings of this people were influenced by Ancient, Christian, and Byzantine Art. There was no definite style. The exteriors were plain, the interiors fantastic. Examples: Mosques of Amru and Cordova; The Geralda; The Alhambra; Mosque of Ispahan; Taj Mahal, India.

Romanesque. This was an attempt to copy Roman Architecture and apply it to individual countries. Characteristics: Boldness, symmetry, rhythm, beautiful grouping. The Basilica was a modification of the Christian basilica, adopting the cross-vault. Examples: Cathedral at Worms; Cathedral of Lund, Sweden; St. Etienne.

Gothic. The distinguishing feature of the Gothic Architecture is the pointed arch. Towers and minarets complete the cathedrals. The style originated in France, and extended to other lands, enduring as a characteristic style into the sixteenth century. It combined the flying buttress with the Burgundian choir and cross-vaulting. Examples: Church of St. Denis, Paris; Cathedral of Rheims; Town Hall at Münster; Westminster Abbey; The Sainte Chapelle, Paris, and the Church of Bron; Cathedrals of Strasburg, Wells, Worcester, Salisbury, and York.

Byzantine. This was a further development of the Roman style. The position of Byzantium made communication with the East and the West easy and natural, and this doubtless accounts for the fusion of Occidental and Oriental elements in its representative architecture. The characteristic feature of Byzantine art was the use of the dome and a general reconstruction on pedentives which made it possible to erect a round dome over a building having a square floor plan. Byzantine buildings were almost exclusively ecclesiastical in character, the greatest surviving monument being the Hagia Sophia, the mosque of Constantinople. The exterior of the building is severely plain, but the interior is lavishly decorated with symbolic figures of the richest mosaics. Beginning about 1200 the Byzantine influence extended over several centuries, being at one time the dominant style of Christian art. It still survives in the Russian bulbous dome and in the accepted architecture of the Greek Catholic Church.

MODERN ARCHITECTURE

Renaissance (1420-1800). The Renaissance is the name given to the period which marks a new birth in art. Individuality marks the work of this time. At first formal, it became more and more picturesque. It became classic in Italy, spac-

ing and design being the chief concern of masters. The best examples are secular buildings. Illustrations: The Strozzi and Gondi Palaces, Florence; Santa Maria della Grazie, Milan; St. Peter's, Rome; The Palazzo Massimi, Rome; Chateaux-Chambord, Chenonceaux, Azay-le-Rideau, Blois, Fontainebleau; The Louvre, Paris; Cathedral of Toledo, Spain; Heidelburg Castle, Germany.

Nineteenth Century. Architecture is now popularized, no universal or generally prevalent style; subjects largely historical, with a revival of the antique. Examples: Buildings in Berlin, by Friedrich Schinkel; Glyptothek, Pinakothek, Propylaeum by Klenze, Munich; The Madeleine, Vignon, Paris; Parliament Houses, Barry; Cathedral of Adelaide, South Australia; various public buildings in the United States.

AMERICAN ARCHITECTURE

While American Architecture has been the subject of severe criticism in the past because of its imitative character and general lack of adherence to the principles of building, there is no doubt that there is in progress the development of a true national architecture, characterized by beauty and sincerity. Of this there is evidence in many noble buildings. What is known as the Queen Anne style of architecture is the union of free composition with classic detail, and it has not been altogether praiseworthy. In attempting to fit antique detail to modern requirements, the building loses in character. The house of Mr. W. H. Vanderbilt of New York is Roman in its architectural details, but modeled after a portion of the Chateau of Blois. The Tomb of Grant in Riverside is modeled after the tomb of Napoleon in Paris. Modern American Architecture aims at adjustment to changing conditions, and finds expression in skyscrapers and in splendid bridges (see ART). Among the best monuments of American Architecture are the Brooklyn Bridge; St. Patrick's Cathedral, New York, and that of St. John the Divine, in process of erection; the Boston Library; the New Public Library, New York; the Capitol and the Congressional Library at Washington; The Casino, New York; the Postoffice and the Chicago University building, Chicago.

THE CATHEDRAL OF ST. MARK'S

Why Interesting. In Venice all roads lead to St. Mark's. The enthusiastic tourist does not let much time elapse, after arriving in the city, before he visits the Plaza San Marco. The first glimpse of the costly cathedral is like a peep at fairy-land, resplendent with jewels and gold. At night the Plaza, or Place, San Marco, is especially fascinating, for then all Venice, seemingly, throngs to the place so dear to the public heart, and music and laughter fill the air. If there are children in the party they will enjoy the pigeons which flock to the Plaza to be fed during the day, and they will watch to see if the horses above the portal really neigh, according to legend, when the clock on the tower across the way strikes the hour. They will accept with eagerness the bits of colored glass distributed freely with sober assurance that they are real mosaics prepared for the Cathedral.

Style. St. Mark's is at once natural and oriental in style. It represents Romanesque, Byzantine, and Gothic influences, and yet the whole effect is one of harmony and unity.

History. The first form of the church was a chapel for the Doge's Palace, in Romanesque style. This was burned, and afterward rebuilt. The main body was completed in the eleventh century, and is Byzantine in style. The ornamentations were added in the seventeenth century. The pinnacles are Gothic. The church is the burial place of St. Mark, who, it is thought, was the first bishop of Venice. There is a legend that in 821, when the church in which the apostle was buried was plundered, a Venetian sea captain brought the body from Alexandria. In order to elude the Mussulmans, he told them he was transporting pork, their abhorrence for which is proverbial. The remains are now under the high altar of the church.

Description. The most important divisions of the cathedral are the façade, or front; the vestibule; the naves or main body, from entrance to choir; the transepts, or part at right angles to nave; the choir; the crypt; the walls and pillars, and the apses or termination of naves and transepts. The church is built in the form of a Greek cross, with four equal wings. There are five domes, the highest reaching about ninety feet from the ground. The five hundred columns are oriental, with elaborately ornamented capitals. The lower part of the walls is inlaid with marbles of different colors. Porphyry, jasper, verd-antique, and lapis lazuli are the materials from which the pillars are made. On the floor is a marble slab marking the place where Barbarossa was beheaded. The three gates are of metal inlaid with silver, and were brought from St. Sophia. The choir decorations represent scenes from the life of St. Mark. Two pulpits were made, one for the preacher and one for the Doge. On special occasions is displayed the Pala d'Oro, or altar piece, wrought on plates of gold and silver, and adorned with jewels.

Statues. On the parapet of the stalls are bronze figures—four evangelists and four great leaders. Fourteen statues on the screen between the choir and nave represent St. Mark, the Madonna, and the Apostles. Very interesting are the four horses above the principal portal. These are of pure copper, once overlaid with gold, and weighing two tons each. They were made by Lyseippas for a triumphal car. They were taken from Rome to Constantinople by Constantine and the Doge Dandolio brought them to St. Mark's. In 1797 Napoleon sent them over the Alps to Paris, where they were placed in the triumphal arch, Place du Carrousel.

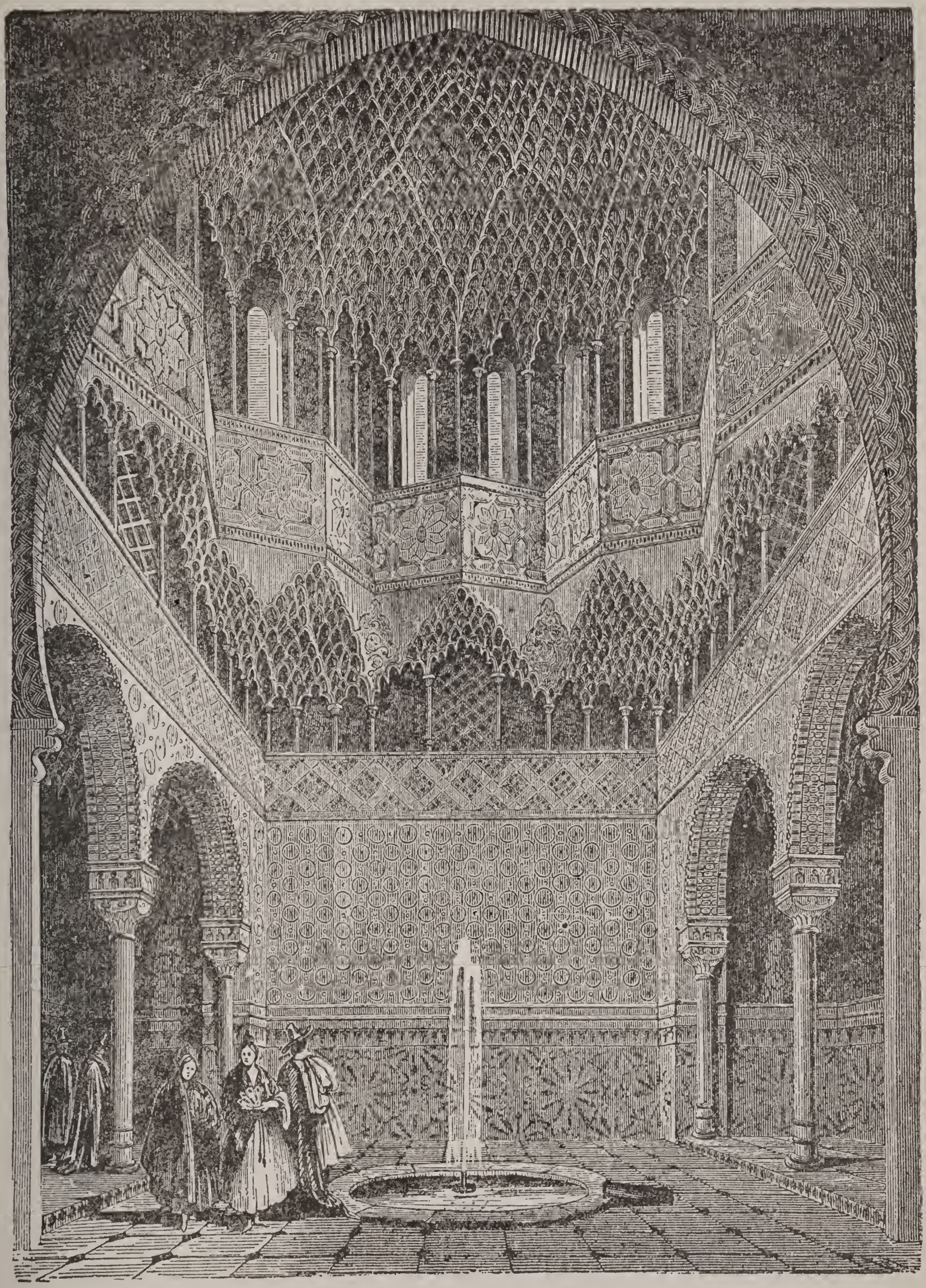
Shrines, Tombs, and Chapels. The Zeno Chapel, sixteenth century; Tombs of Andrea Dandolio and Doge Vitale Faliero and Wife; Shrine of Holy Cross; Baptistery or Chapel of St. John.

Mosaics. These "paintings in marble" are done on a background of bright gold. The most famous mosaics are those over the doorways of the principal façade. They picture the Transportation of the Relics of St. Mark's, the Landing, the Last Judgment, the Magistrates, the Entombment, and the Early Church. The Mosaics of the Vestibule represent Old Testament history. Over the entrance is Christ Enthroned. On the walls, the plan of salvation is depicted. There are three pictures of Christ in the Garden, giving in progression the states of mental agony. The Old Testament History pictured on the vault is the work of Francesca and Valerio Tuccato.

General Impression. The most appreciative description of the Stones of Venice is given by Ruskin. He makes real the shadowy aisles, the starlike apertures around the domes of the roof, the far-away casements, the torches and silver lamps in the recesses of chapels, the gold-sheathed roof, the polished walls of alabaster, the halos over sainted heads, and the symbolic designs of birds, serpents, and beasts of prey. Many lands contributed to make San Marco what it is—the greatest wonder of the most wonderful city of the Adriatic.

QUESTIONS FOR STUDY

San Marco—meaning of name.
What can you say about the form and style?
To what periods of Architecture does the Cathedral belong?
Which part shows Byzantine influence? Gothic?
How many entrances and naves has it? How many domes?
Where are the famous horses? Give their history and the legend about them.
How would their weight compare with that of real horses?
What are Mosaics? What is the difference between turrets and towers? Meaning of façade, nave, transept.
Describe the Mosaics on the façade; in the vestibule; on the inside walls and vault.



ALHAMBRA—Hall of Abencerrages

ACROPOLIS—Restored

AGRICULTURE

Naturally, this is one of the oldest arts in existence. While many of the early peoples lived chiefly by hunting and fishing, yet in all periods of time the earth was looked upon as the mother by whom the race was to be nourished. The word "earth" is derived from a term meaning "the plowing place." And so the times for tilling the ground, for sowing seed, and for harvest, will always be important occasions.

While, like other arts, agriculture has had stages of growth, yet it is only within a comparatively short period of time that the increasing population and the broadening of scientific knowledge has led both political economists and tillers of the ground to note wasteful methods, and to see the advantage of using all the world's wisdom to help make the soil produce more abundantly. The outlines given below are intended to be suggestive and helpful both to the teacher and the general reader. They cover a broad field of information and investigation—especially when taken in connection with the great scope of the articles in the body of this work.

HISTORY AND DEVELOPMENT

1. Peculiarities of Egyptian agriculture.
2. Flocks, herds, field products mentioned in the Scripture.
3. Agricultural pursuits of the Romans.
4. The feudal system of Europe; serfdom, etc.
5. Agriculture and the improvement of farm animals in England, France, etc.
6. Message of President Washington on the importance of cultivating the farms.
7. Message of President Roosevelt on the advantage of scientific farming.
8. Societies for the promotion of agriculture in the United States from 1785 to the present day.
9. Establishment of Agricultural Colleges and Agricultural and Horticultural Experiment Stations made a national policy by the United States.

IMPORTANCE OF THE INDUSTRY

1. FACTS: growth of the population; improvement of animal breeds; work of Burbank and others in creating new and better varieties of fruits and plants; the Pure Food laws; reclamation; peoples of the earth becoming better acquainted, etc.

2. STATISTICS: area of the continents, countries, and states; proportion under cultivation, part given to grazing, etc.; cattle raised and cattle needed; amount of food required and amount raised, etc.

SOIL

I. MEANING OF TERM.

II. PARTS.
   1. Soil proper.
   2. Subsoil:
      a. Clay subsoil.
      b. Hardpan.
   3. Bedrock.

III. ORIGIN.
   1. Disintegrated rock. (See EROSION.)
   2. Decomposed animal and vegetable matter.
   3. Decomposed minerals.

IV. Formation.
- 1. Sedentary.
  - a. Residual.
    - (1) Location.
    - (2) Color.
    - (3) Where found.
  - b. Peat.
    - (1) How formed.
    - (2) Where formed.
- 2. Transported.
  - a. Alluvial.
    - (1) Origin.
    - (2) Examples.
  - b. Wind Blown. (See Dust, Dune, Sand, Beach Grass.)
    - (1) Material transported.
    - (2) Where found.
  - c. Glacial drift. (See Ice Age.)
    - (1) Where found.
    - (2) How formed.
    - (3) Materials composing.
  - d. Volcanic Ash.
    - (1) Examples.
    - (2) Productiveness.
  - e. "Gumbo."
    - (1) Formation.
    - (2) How broken up.
    - (3) Where found.

V. Classification.
- 1. As to texture.
  - a. Heavy.
  - b. Light.
- 2. As to constituents.
  - a. Gravelly.
  - b. Sandy.
  - c. Loamy.
  - d. Clayey.
  - e. Calcareous.
  - f. Humus.

VI. Value to Agriculture Depends on:
- 1. Character of original rock.
- 2. Degree of fineness.
- 3. Organic constituents.
- 4. Process of preparation.
- 5. Changes produced by cultivation.
- 6. Store of plant food.
- 7. Moisture.
- 8. Temperature.

VII. Composition of Soils.
- 1. Plant foods (rock elements):
  - a. Nitrogen.
  - b. Chlorine.
  - c. Sulphur.
  - d. Phosphorus.
  - e. Silicon.
  - f. Potassium.
  - g. Sodium.
  - h. Calcium.
  - i. Magnesium.
  - j. Iron.
- 2. Classification of soil foods.
  - a. Active.
  - b. Latent.
  - c. Mechanical.
- 3. Chemical analysis.

VIII. Physical Properties.
- 1. Most important:
  - a. Color.
  - b. Weight.
  - c. Fineness of texture.
  - d. Structure.
  - e. Adhesiveness.
  - f. Relation to heat, water, and gases.
  - g. Decomposition.
- 2. Control by man limited.

IX. Texture.
- 1. Why important.
  - a. Circulation of gases and water.
  - b. Solution and retention of plant food.
  - c. Growth of roots.
- 2. How improved.
  - a. By cultivation.
  - b. By fertilizing.
  - c. By earthworms.

X. Relation to Heat and Water.
- 1. Temperature of soils.
  - a. Variations.
  - b. Cause of.
  - c. Modified by:
    - (1) Color.
    - (2) Texture.
    - (3) Exposure.
    - (4) Water content.
    - (5) Chemical action.
    - (6) Depth.
- 2. Moisture.
  - a. Necessary for plant food.
  - b. Needed as a solvent.

c. Capacity for holding dependent on texture and amount of organic matter.
d. Readiness of yielding.
e. How held by soil.
(1) Hydrostatic.
(2) Capillary.
(3) Hygroscopic.
f. Movement in soil.
(1) Percolation.
(a) How aided.
(b) Benefits.
(2) Evaporation.
(a) Capillarity and its benefits or harm.
(b) How retarded.

3. Dry farming.

XI. Work of Living Organisms.
1. Roots.
2. Earthworms.
3. Bacteria.
a. Decomposed animal and vegetable matter.
b. Fix free nitrogen in soil.
c. Form nitrates.
d. Denitrate soil.

XII. Exhaustion of Soil.
1. Loss of fertility due to:
a. Removal of elements without replacing.
b. Surface washing.
c. Leaching.
d. Addition of life-destroying elements.
2. Improvements.
a. Addition of fertilizers.
b. Rotation of crops.
c. Drainage, irrigation, tillage.

XIII. Reclamation.
1. Processes.
a. Drainage.
(1) Removes water.
(2) Admits air.
(3) Permits decomposition.
(4) Allows nitrification.
b. Irrigation.
(1) Need of.
(2) Sources of water.
(3) Methods of distribution.
(4) Advantages.
(5) Dangers.
c. Paring and burning.
d. Addition of fertilizers.
e. Increase of humin.
2. Purposes.

XIV. Soil Study.
1. Methods.
a. Analysis.
(1) Mechanical.
(a) Hydraulic.
(b) Sedimentation.
(c) Centrifugal.
(2) Chemical.
b. Box experiments.
c. Field experiments.
2. Work in United States.
a. Agricultural Experiment Stations.
b. Bureau of Soils.
3. Work in other countries.

QUESTIONS AND SUGGESTIONS FOR ADDITIONAL STUDY

1. Send to your nearest agricultural experiment station for literature on soil conditions necessary for best yield of crops raised in your locality.

2. Nitrogen is an essential to plant life; however, no plant can take it directly from the air. When supply is exhausted in the soil, what is done to replace it? Read Clover, Air (paragraph on Nitrogen).

3. The chief soil elements necessary for plant growth are nitrogen, potash, and phosphorus. Where these elements are lacking they must be supplied. Nitrogen comes chiefly from decay of organic matter; that is, plant and animal tissue. Phosphorus and potash are natural ingredients of the soil; that is, they come by decomposition of material of the original rock. Cotton draws largely on *all* the soil elements, as does also tobacco, rapidly exhausting the soil. Before scientific fertilizing was so

well understood, the practice was to abandon large areas in the South when the cotton yield was insufficient to pay. This demand for new cotton fields made it necessary that the new territory suitable for raising cotton should come in as slave territory, as without negro labor cotton could not be raised. This was a fruitful cause of agitation preceding the Civil War.

4. What effect does deep tiling have on land? Deep plowing? Do they make the soil too dry in time of scant rainfall? Why?

5. What system of rotation of crops is followed in your locality? What can you tell of other systems? Read ROTATION. Of what advantage is rotation aside from securing plant food?

6. What use is sometimes made of lime in fertilization?

(Valuable additional information will be found in the body of this work under the heads SOIL, CLAY, ROCK, DELTA, DESERT, CHALK, GYPSUM, HUMUS, CHEMISTRY (General Index), EARTHWORMS, FERTILIZER, BACTERIA, IRRIGATION, DRAINAGE, EXPERIMENT STATIONS, DRY FARMING, etc.)

PLANT GROWTH

1. Relation to soil, air, climate, animal life.
2. Elements necessary for healthy plant life.
3. How plants are propagated; seeds, cuttings, fertilization.
4. Best soil conditions, kinds, etc.
5. Grafting, pruning, cross-fertilization, close-fertilization, etc.
6. Plant enemies: insects, disease.
7. Value of crop rotation.
8. Farm plat. (See Chart.)

CROP PRODUCTION AND DISTRIBUTION

1. Kinds of crops.
   a. Cereal: wheat, corn, rice, buckwheat, etc.
   b. Orchard or grove: apple, peach, apricot, orange, olive, etc.
   c. Market garden: root plants, leaf plants, vine products, etc.
   d. Vineyard: grapes and grape products.
   e. Small fruit: blackberry, currant, cranberry, etc.
   f. Nut: pecans, walnuts, cocoanuts, chestnuts, etc.
   g. Tobacco: Havana, Sumatra, etc.
   h. Cotton: short staple, Sea Island, etc.
   i. Hay: clover, timothy, alfalfa, etc.
   j. Grass: blue grass, bunch grass, wire grass, etc.
   k. Flower: very numerous.
   l. Seed: usually cereal, tobacco, cotton, or flower.
   m. Ordinary garden.
   n. Nursery: trees, flowers, etc.
2. Commercial Crops.
   a. Which crops have a general sale? Why?
   b. Which have a local use? Why?
   c. How are they transported?
3. Soil Conditions. (See study of SOIL in this article.)

METHODS OF STUDY

OATS

1. What is a cereal? Name other cereals.
2. Classes.
   a. Spreading or common. Describe.
   b. Tartarian or banner. Describe.
   c. Wild, short, and other varieties. Describe.
3. Origin.
4. Climatic conditions.

a. Do oats grow best in hot or cold climates?
b. How does moisture affect their growth?

5. Cultivation.
   a. How is the ground prepared for the crop?
   b. What is the method of planting?
   c. When usually sowed?
   d. What about fertilizers?
6. Enemies.
   a. Insects.
   b. Plant diseases.
7. Food uses.
   a. As stock food (stalk, grain).
   b. As human food (grain).
   c. How prepared?
8. Distribution.
   a. Foreign habitat.
   b. Where grown in United States?
9. Commercial value.

QUESTIONS FOR STUDY

1. Name all the different ways of using oats as food for the lower animals; for man.
2. Find names of all articles on the market manufactured from oats, or which have oats as an ingredient.
3. The cereals are so named from Ceres. Find what you can about her.
4. What are the characteristics of the grass family? Name the different grasses raised in your neighborhood.
5. You will often find plants growing like grass, except they have triangular stems. What are they?
6. Describe the entire process of raising oats from planting to choosing seed for the next planting.
7. What improvements have been made in the harvesting of grains? (See plate.)

Clover

1. Belongs to what family?
2. Kinds, number, how distinguished.
3. Most useful varieties.
   a. Red clover.
      (1) Description of stems, leaves, bloom, roots.
      (2) Where grown.
      (3) Seed, how obtained, market for.
      (4) Number of crops.
      (5) Value as pasture, as hay, to bees.
      (6) Effect on the soil.
      (7) Use as a fertilizer.
   b. White clover.
      (1) Description of stem, flowers, roots.
      (2) Where and how grown.
      (3) Use to bees.
      (4) Not used for pasture?
      (5) Effect on lawns.
   c. Alsike (Swedish clover).
      (1) Description of stony head, roots.
      (2) Where grown? Why?
      (3) Relation to irrigation.
      (4) Uses.
4. Less common varieties.
   a. Italian or scarlet clover.
   b. Yellow or hop clover. Habitat.
   c. Egyptian clover. Uses.
   d. Rabbit-foot clover.
5. Cultivation.
   a. Kind of soil needed.
   b. Preparation of the soil.
   c. Sowing the seed.
   d. When can the different kinds be properly used for the purposes indicated above?
   e. In what ways does clover help the soil?
   f. How best prepared for use as a food?
   g. Injurious enemies: insects, diseases, moisture, etc.
6. Value to farmers.
   a. For pasturage.
   b. In honey making.
   c. For hay for animals generally.
   d. As a food for milch cows.
   e. In producing mellow soil.
   f. As a fertilizer.
7. Cross-fertilization.
   a. What is it?
   b. How is it accomplished?
   c. What is its value?

ADDITIONAL FACTS AND QUESTIONS FOR STUDY

An interesting story is told of red clover in Australia. For several years they had tried raising it. It made luxuriant growth, but no seed was produced. Importing seed proved very expensive, so the farmers set about to seek the cause of the trouble. A scientist from this country went down to investigate conditions. He found the soil had the necessary elements, the climate conditions were ideal—in fact, he discovered no cause until he studied the insect world. Here he found the Australian bee had a very short proboscis and was entirely unable to reach the nectar cups; so of course it let the clover alone. What did he do? Simply had a friend box up some bumble bees and send them down. They were turned loose in the clover fields at the proper time and the result was plenty of clover seed.

1. Why is not the white clover suitable for pasture?
2. Write to your nearest agricultural college or experiment station for literature on clover as a fertilizer.
3. Make comparative drawings of leaf and bloom of all varieties you can find.
4. What characteristic of the plant makes alfalfa a good drouth-resisting crop? What has it done for land where clover will not grow? Will alfalfa grow in your neighborhood? If not, why not?
5. Make a test of one cow's milk while feeding her on clover hay; then feed her on alfalfa for two weeks and test. Would it pay to feed alfalfa? Experiment with other forage crops.
6. Learn what you can about the shamrock.
7. What had the clover to do with early church architecture?
8. Where are the less common varieties of clover found? What are their characteristics and uses?
9. What has moisture to do with the growth of clover?

TOMATO

1. Character and description.
   a. Is it grown from seed or cuttings?
   b. What is the form of its stem?
   c. Is it an annual or a perennial?
   d. What is the appearance of the plant?
   e. By what means is its growth sometimes helped?
   f. What means is used to improve the fruit and prevent its decay?
2. Origin.
   a. How first used?
   b. How now used?
3. Varieties.
   a. The common tomato.
   b. The pear-shaped tomato.
   c. The large leaf tomato.
   d. The cherry tomato.
   e. Miscellaneous kinds.
4. Color.
   a. Cherry red.
   b. Yellow.
   c. Light pink.
5. Uses as food.
   a. Of green tomatoes.
   b. Of ripe tomatoes, raw.
   c. Of ripe tomatoes, canned.
   d. As preserves.
6. Food values.
   a. Considering its chemical properties.
   b. To what extent is it a commercial product?
   c. Where, when, and how grown?
   d. What conditions are best for securing both a good crop and a crop of good fruit?
7. Enemies.
   a. Plant diseases, fungicides, ventilation.
   b. Insects (tobacco worm, boll worm, beetle, etc.).
   c. Moisture.

SUGGESTIONS FOR STUDY

1. The tomato is classed as a berry, as also is the orange. A berry is a juicy fruit enclosed in an outer covering containing seeds loosely imbedded in a pulpy center. Name some of our common berries that are not really berries.

2. Of what country is the tomato a native?
3. How many varieties have you seen raised in your neighborhood? Look through some seed catalog and count the different varieties. How do you account for so many varieties from one original stock?
4. Do different varieties of tomatoes mix? Try dusting the pollen of red tomatoes on some variety of yellow and watch results. Talk with gardeners about this.
5. What kind of soil is required for a successful yield?
6. Set out two plants of equal growth and development. Let one develop naturally. Train the other upon a trellis and keep pruned. Cultivate both the same way and make all other conditions equal. Notice comparative size of fruit and keep record of yield by pounds. Which way pays best?
7. Draw a leaf; also cross-sections and a longitudinal section of as many different varieties of the fruit as you can find.
8. The braconid is a kind of ichneumon fly. It is a deadly enemy of many others in the insect world from the habit it has of depositing its eggs either upon or within the body of a caterpillar. This does not cause the immediate death of the caterpillar, as the larvae of the ichneumon depend on the caterpillar's body for nourishment. In fact, the death of the caterpillar does not occur until the ichneumon larvae have spun their cocoons. One can frequently see on the tomato vines a caterpillar having on its back a number of small, round, white objects standing on end. These are pupa cases of the braconids, and you need not bother to kill the caterpillar, as his death is provided for when the eggs are deposited. Instead, watch to see what happens to the pupa cases. Would it be worth while to cultivate the braconids to destroy the caterpillars in the garden?

OUTLINE OF GENERAL COURSE IN PRACTICAL BOTANY

I. Structure and Development of Plants.
   1. Seeds—their structure and germination.
   2. Soil—constituents, composition, and how it helps germination.
   3. Root.
   4. Stems.
   5. The leaf.
   6. Flower.
   7. Fruit.
   8. Plant cell.
   9. Anatomy of stem, root, and leaf.
   10. Composition of plants.
   11. Work of the roots, stems and leaves: osmosis, transpiration, absorption, photosynthesis, digestion, respiration, etc.
   12. Growth.
   13. Reproduction.

II. Uses of Plants.
   1. As food.
   2. As medicine.
   3. In the arts.
   4. As ornaments, etc.

III. Classification of Plants.

IV. Conditions of Plant Life.

SPECIAL BOTANY OF FARM CROPS

Classification of Farm Plants (Vegetable Kingdom)

1. Beet Family	Common beet Mangel-Wurzel Sugar beet Chard, or white beet	General Characteristics. Seed germination. Roots and Hypocotyl. Flower. Varieties and uses. Climate and soil. Sowing, yield, composition, diseases

2. Turnip Family.	Cabbage, Cauliflower Kohl Rabi Common turnip Rutabaga Rape	(Consider under same headings as family above.)
3. Rose Family.	Plum Wild plum Apricot Peach Strawberry Quinces	Cherry. Raspberry. Blackberry. Pear. Apple. Almond.
4. Legume Family	Clovers Alfalfa Cow Peas Soy beans Vetches	General characteristics. Root, stem, leaves. Seed germination. Flower, varieties, climate, soil. Sowing, yield, composition. Diseases.
5. Parsnip Family	Wild parsnip Parsnip Wild carrot Carrot	(Considered under same headings as Beet Family.)
6. Nightshade Family	Potato Tomato Eggplant Pepper Tobacco	Seed and seeding. Root. Stem and tuber Germination of tuber. Varieties. Climate and soil. Planting, yield, composition.
7. Composite Family	Thistle Dandelion Ox-eye daisy	General characteristics. Eradication. Uses.
8. True Grasses	Blue grass Timothy Red-top Millets Brome grass	General characteristics. Root, stem, leaf. Inflorescence. Flower. Ripening. Seed.
9. Cereals	Wheat Oats Barley Rye Buckwheat Corn Rice Spelt	Grain and germination of seed. Roots, tilling. Flower. Ripening. Varieties. Climate, soil. Sowing, yield, composition.
10. Citrus Fruits	Citron (lime) Orange Lemon Grapefruit	How propagated. Grafting, pruning, etc. Varieties. Climate, soil, yield.

- 11. Olives
  - Fruit olive
  - Ornamental olive
  - Fragrant olive
    - How propagated.
    - Origin, climate.
    - Yield, uses.
- 12. Melon Family
  - Watermelon
  - Muskmelon (canteloupe)
  - Cucumber
  - Squash
  - Pumpkin
    - General characteristics.
    - Seed germination.
    - Flowers.
    - Varieties.
    - Soil, cultivation.
- 13. Shrubs
  - Gooseberries
  - Currants
    - Seeds, cultivation.
    - Climate, soil.
    - Habit of growth.
    - Yield, uses.
- 14. Weeds of the Farm (General)
  - How weeds are spread.
  - Injurious effects.
  - Duration of weeds.
  - Habit of growth.
  - Extermination.
  - Use as fertilizers.
- 15. Weed Work (Special)
  - Study of individual types.
  - Study of seed.
- 16. Farm Seed (General)
  - Purity of sample.
  - Germinating capacity.
  - Speed of germination.
  - Weight.
  - Color, form, odor.
- 17. Farm Seed (Special)
  - Study of individual seeds
    - Form.
    - Size.
    - Color.
    - Purity.
    - Germinating capacity.
    - Weight.

OUTLINE OF FARM CROPS

Cultivation of Corn

1. History of corn plant.
2. Acreage, distribution, production, valuation.
3. Classification and botanical characteristics.
4. Germination and growth of plants.
5. Climate and soil in its relation to corn.
6. Selection and preparation of seed corn for planting.
7. Care of the corn crop.
8. Harvesting and storing of the grain.
9. Diseases and insects attacking the corn plant.
10. Weeds of the corn field.
11. Composition and feeding value of corn.
12. Corn silage and the production thereof.
13. Corn judging.
14. Corn breeding.

Cultivation of Oats

1. Selection and preparation of seed.
2. Preparation of seed-bed.
3 Time of seeding.
4 Methods of seeding.
5. Depth of seeding.
6. Subsequent care.
7. Harvesting, stacking, threshing.
8. Composition and feeding value.

9. Cost of production.
10. Diseases of the oat plant.
11. Treatment of the same.
12. Insect enemies of the oat field and how to combat them.
13. Weeds of the oat field and how to eradicate them.

Wheat, Barley, Flax, Rye, and Buckwheat may be taken up under practically the same headings as Oats.

Cultivation of Grasses

Timothy, Blue grass, Orchard grass, Red top, Brome grass, Meadow grass, Meadow fescue, Millets, Johnson grass, Bermuda grass, Rye grass

- History of grass.
- Seed for planting.
- Preparation of seed-bed.
- Sowing.
- These grasses as pasture.
- These grasses as hay.
- Composition and feeding value.
- The seed crop.
- Weeds found in meadows and pastures.

Clovers, Alfalfa

- History and distribution.
- Climate and soil.
- Seed.
- Time and method of seeding.
- Legumes as pasturage.
- Composition and feeding value.
- Insect enemies.

Rotation of Crops

1. Purpose.
2. What profit from it?
3. What crops may advantageously follow certain other crops? Why?

Fruit Growing

1. Factors in successful fruit growing: location, soil, topography, cultivation, mulching, cover crops, plant, food, manuring, varieties, planting.
2. Orchard protection: injuries, frost protection, foretelling frost.
3. Spraying and spraying apparatus.
4. Principles of plant growth: parts of plant, parts of flower, pollination, fertilizing, hybrids, assimilization, transpiration, rest period, classification of plants, varieties.
5. Propagation of fruit plants: seed, budding, cutting, grafting, pruning, planting, stratification.
6. Apples: kinds and classes, the orchard trees, seedlings, grafting, planting, heeling in, cultivation, pruning and mulching, destroying insect enemies.
7. Plums and Peaches: origin, soil, propagation, planting, insects, diseases and treatment.
8. Grapes: origin, soil, propagation, planting, training and pruning, enemies.
9. Small fruits:

   Strawberry: origin, soil, location of soil, manuring, planting, protection, renewing, picking and marketing.

   Currant and Gooseberry: origin, soil, planting, pruning, manuring, insects and diseases.

   Raspberry and Blackberry: origin, classes, propagation, location, soil, manuring, planting, cultivation, pruning, trimming, mulching, and protection.

Vegetable Gardening

1. Location and soil for early and late crops.
2. Rotation of crops.
3. Tillage: purpose and methods.
4. Garden implements. What are needed? Why?
5. Seed-sowing. Time to sow, depth to plant, manner of sowing, kinds of soils, firming, soil, thinning, transplanting, shortening of tops, and training of plants.
6. Seed-testing. Germinating apparatus; methods of making tests.
7. Glass structures. Cold frames, hotbeds, soil and manures, fire hotbeds.
8. Insecticides and their application. Camphor, Paris green, London purple, arsenate of lead, bisulphide of carbon, kerosene, soap, white hellebore.
9. Classification of vegetables. Tender and hardy vegetables, warm and cold cilmate vegetables.
10. Botanical characteristics.
11. Directions for cultivation of the following vegetables: sweet corn, asparagus, rhubarb, horse-radish, onions, leeks, garlic, beets, carrots, turnips, spinach, cabbage, cauliflower, kale, kohl-rabi, celery, radish, rutabagas, parsnip, parsley, salsify, sweet potato, Irish potato, tomato, eggplant, peppers, cucumber, squash, pumpkin, watermelon, muskmelon (cantaloupe), okra, lettuce.

Garden Plans

Farmers' garden.
Town lot garden.
School garden.
Flower garden.

FARM MACHINERY

I. History and growth.
II. Influence upon public welfare.
III. Relation to farm, orchard, and market garden crops.
  1. Greater variety.
  2. Larger crops.
  3. Better quality.
IV. Kinds.
  1. Reaper and binder, its origin, development, parts.
  2. Mower, its invention, forms, parts.
  3. Plow, its history, growth, propelling force.
  4. Cultivator, varieties, parts, benefit.
  5. Corn planter, history, forms, benefit.
  6. Grain drill, advantage with grain, with fertilizer.
  7. Harrow, forms, purposes, advantage.
  8. Cotton planter, cotton gin, cotton harvester.
  9. Thresher, first form, modern improvements.
  10. Hay rakes and forks, where and how used.
  11. Hoe, common rake, spade, ax, pruning knife, etc.
V. Use of each Tool.
VI. Care of each Tool.

FARM ACCOUNTS

I. Amount of seed per acre.
II. Cost of seed per acre.
III. Amount of fertilizer used.
IV. Kind of fertilizer used (home products; bought).
V. Effect of crop on succeeding crop (rotation, etc.).
VI. Method and times of cultivation, implements used, etc.
VII. Kind and condition of soil.
VIII. Weather conditions.
IX. Produce per acre.
X. Home use.
XI. Amount marketed and cost of marketing.
XII. Seed observations.
XIII. Disease notes.
XIV. Insects.

1. The Sickle.

2. The Cradle.

3. The First Successful Harvester.

4. Harvester: the binders ride.

5. The Self-Binding Harvester.

6. Combined Steam Harvester:
It heads, threshes and sacks the grain.

The Development of Reaping Machinery.

Orchard

I. Amount of ground in orchard.
II. Kind of fruit cultivated.
III. Varieties planted.
IV. Attention given this crop.
V. Diseases, insects (treatment, cost).
VI. Results, comments, etc.

Animals

I. Kinds in general use; how cared for.
II. Kind specially bred and raised.
III. Care used in breeding.
IV. Cost of same.
V. Food used, how prepared, how fed.
VI. Special attention given dairy cows.
VII. Yield of each in milk, butter, and cheese.
VIII. Food required by animals.
  a. Amount.
  b. Kind.
  c. For what purpose (fat, flesh, labor, eggs).
IX. Number bought and their cost; died; sold.
X. Profit and loss showing at end of year.

General

I. Inventory at beginning of year.
II. Inventory at close of year.
III. Cash received and from what source.
IV. Cash paid out and for what.
V. Value of home labor; how reckoned and paid.
VI. Bank account.
VII. General improvement account.
VIII. Best method of keeping accounts.

ANIMAL HUSBANDRY

I. Domestic Cattle.
  1. Classification.
  2. Method of judging.
  3. Beef.
    a. Short Horns.
    b. Herefords.
    c. Aberdeen Angus.
    d. Galloway.
  4. Dual Purpose Type.
    a. Red Polled.
    b. Devon.
    c. Polled Durham.
    d. Brown Swiss.

Origin, history, and development.
Introduction into America.
Care, feed, and management of breed cattle.

II. Dairy Cattle.
  1. Holsteins.
  2. Guernseys.
  3. Jerseys.
  4. Ayrshires.
  5. Durham.
  6. Devon.
  7. Brown Swiss.

Points to be observed in judging and selection.
Origin, history, characteristics, development.
Introduction into America.
Care, feed, and management of the dairy herd.

III. Hogs.
  1. Origin and domestication of swine.
  2. Classification of swine.
  3. Method of judging.
  4. Varieties or breeds:
    Berkshire.
    Poland China.
    Duroc Jersey.
    Chester White.
    Yorkshire.
    Tamworth.

Origin, history and development.
Development in America.
Feed, care, and management of hogs.
Discuss trichinae, their cause, their effect, prevention.

IV. Horses.
  1. Origin, history, and development of horses.
  2. Anatomy of the horse. (See article on the Horse.)
  3. Examination for soundness.
  4. Classification of horses.
  5. Points to be observed in judging a horse.
  6. Points to be observed in judging breeding stock.

7. Varieties or breeds:
   Percheron.
   Shires.
   Belgian.
   Clydesdale.
   Thoroughbred.
   Standard bred:
      a. Light and heavy harness horse.
      b. The American saddle horse.

Origin, history and development.
Importation into America.
Feeding, caring for, and handling of horses.
Defects to be guarded against.
Diseases and their prevention or cure.

V. Domestic Sheep.
   1. Origin and domestication.
   2. Classification.
   3. Method of procedure in judging fat, also wool-producing sheep.
   4. Breeding sheep, its relation to cattle raising, etc.
   5. Varieties or breeds:
      Leicesters.
      Lincolns.
      Cotswold.
      Shropshire.
      Southdowns.
      Oxford.
      Cheviot.
      Dorset.
      Hampshires.

   Origin, history, and development.
   Development in America.
   Care, feed, and management of the flock.
   Diseases and their prevention or cure.

VI. Poultry.
   1. Importance of the poultry industry.
   2. Poultry in the United States.
   3. Breeds and varieties.
   4. Selecting a poultry farm.
   5. Fencing.
   6. Buildings.
   7. Feeding of poultry.
   8. Poultry management.
   9. Methods of feeding laying fowls.
   10. Feeding breeding fowls.
   11. Care and management of domestic turkeys.
   12. Care and management of domestic ducks.
   13. Care and management of domestic geese.
   14. Incubation, natural and artificial.
   15. Location and construction of incubators.
   16. Brooders and brooding.

ANIMAL STUDY—THE HORSE

1. A vertebrate animal. Explain.
2. Wild relatives: zebra, wild ass, quagga.
3. Distinctive feature, one toe.
4. History.
   a. Fossil.
      (1) Development of foot shape in horses earlier and later fossils.
   b. Modern.
      (1) Origin, supposed to be the descendant of the wild horse of South America.
      (2) When introduced into West Indies, Florida, Acadia, Jamestown, New York, New England?
5. Uses.
   a. By early colonists.
   b. By trans-Alleghany colonists.
   c. By settlers of Great Plains.
   d. Supplanted by machinery, in part.
   e. Extent of use on farms today.
   f. As race horses, draft horses, harness and saddle horses, etc.
6. Enemies.
   a. Horse-fly, gad-fly, bot-fly, parasites.
7. Foods.
   a. Compare those of wild and domestic horses.
   b. Effect on the rearing of horses.
8. Breeds.
   a. Track horses.
   b. Draft horses.
   c. Standard-bred horses.
   d. Horses for general farm work.
   e. Broncos.

9. Diseases.
   a. Kinds peculiar to horses.
   b. How communicated.
   c. Effect of heredity on disease.
   d. What special care does the hoof require?
   e. Cures.

1. A great deal of energy is lost by the horse in fighting flies. This means not only less work, but also more food, to say nothing of the injury to the disposition of the horse. Would it not be worth while to take steps to destroy the pests? What would you advise?

2. Find cause and remedy for heaves, founder, spavin, bots.

3. Study the illustrations of horses and make comparison between the modern horse and the wild members of the same family, with particular reference to individual parts. Determine how these differences make the modern horse more valuable to man.

4. Read lesson on *Horse Racing*. Which do you think more beneficial to man, development of fast trotting or fast walking? Why?

ARBOR DAY EXERCISES

I. Plant at Least One Tree With Appropriate Exercises.

II. How to Plant a Tree.

1. *Dig the Hole Wider and Deeper than the Tree Requires.* The root tips are the feeders and they cover the periphery of the root system. They will reach out during the growing season, forming a new set of feeding roots. They should find only mellow, rich soil in all directions. If the tree just fits into the socket, its roots will meet a hard wall which the delicate tips cannot penetrate and hold fast to, nor feed in. The first year is the critical one.
2. *Be Sure that the Surface Soil is Hoarded at One Side When the Hole is Dug.* This soil is mellow and full of plant food. The under soil is more barren and harder. Some rich garden soil can well be brought over and used instead of this sub-soil.
3. *Take Up as Large a Root System as Possible With the Tree You Dig.* The smaller the ball of earth the greater the loss of feeding the roots and danger of starvation to the tree.
4. *Prevent the Drying of the Exposed Roots.* When root hairs once shrivel they rarely revive. This is the general rule. A tree may survive but would be greatly debilitated by careless handling in this particular.
5. *Trim All Torn and Broken Roots With a Sharp Knife.* A ragged wound, above or below ground, is slow and uncertain in healing. A clean, slanting cut heals soonest and surest.
6. *Set the Tree on a Bed of Mellow Soil with All Its Roots Spread Naturally.*
7. *Let the Level Be the Same as Before.* The tree's roots must be planted, but not buried too deep to breathe. A stick laid across the hole at the ground level will indicate where the tree "collar" should be.
8. *Sift Rich Earth, Free from Clods, Among the Roots.* Hold the tree erect and firm. Lift it a little to make sure the spaces are well filled underneath. Pack it well down with your foot.
9. *If in the Growing Season, Pour in Water and Let it Settle Away.* This establishes contact between root hairs and soil particles, and dissolves plant food for absorption. If the tree is dormant, do not water it.
10. *Fill the Hole With Dirt.* Tramp it well as filling goes on. Heap it somewhat to allow for settling. If sub-soil is used, put it on last. Make the tree firm in its place.

11. *Prune the Top to a few Main Branches and Shorten These.* This applies to a sapling of a few years whose head you are able to form. Older trees should also be pruned to balance the loss of roots. Otherwise transpiration of water from the foliage would be so great as to overtax the roots, not yet established in the new place. Many trees die from this abuse. People cannot bear to cut back the handsome top, though a handsomer one is soon supplied by following this reasonable rule.
12. *Water the Tree Frequently as it First Starts.* A thorough soaking of all the roots, not a mere sprinkling of the surface soil, is needed. Continuous growth depends upon moisture in the soil. Drainage will remove the surplus water.
13. *Keep the Surface Soil Free From Cakes and Cracks.* This prevents excessive evaporation. Do not stir the soil deep enough to disturb the roots. Keep out grass and weeds.—From *Ohio Arbor Day Annual.*

III. Suggestive Exercises.

1. Songs—*The Ivy Green, Hail to the Elm, The Brave Old Oak, A Dream of Summer, The Hemlock Tree, The Tree in Winter,* etc.
2. Story of Johnny Appleseed.
3. What our state is doing in tree planting.
4. Trees as educators.
5. List of state and national flowers.
6. Poems: *A Forest Hymn,* Bryant; *The Oak,* Geo. Hill; *The Rhodora,* Emerson; *To a Mountain Daisy,* Robert Burns; *The Birch Tree,* Lowell; *The Oak,* Lowell; *The Birch Tree,* from Hiawatha; *My Hickory Fire,* H. H. Jackson.

Suggestions About Plants

1. Value of plants.
   a. For shade.
   b. For protection.
   c. For beautifying the home, the schoolgrounds, public parks, etc.
   d. For purifying the atmosphere.
   e. For giving pleasure and peace to the sick, the tired, etc.
2. Kinds of plants.
   a. Wild flowers; as hepatica, violet, wood anemone, wintergreen, bleeding heart, golden rod, field daisy.
   b. Annuals; as sunflower, petunia, poppy, castor bean, portulaca, sweet pea.
   c. Perennials; as hollyhock, lily, tiger lily, orchid, chrysanthemum, geranium.
   d. Vines; as wistaria, clematis, Virginia creeper, Boston ivy, trumpet vine.
   e. Shrubs; as privet, Japanese barberry, lilac, myrtle, laurel, spiraea, flowering currant, mock orange, snowball, hybiscus, hydrangea.
   f. Winter bulbs; as daffodil, jonquil, tulip, hyacinth.
   g. Trees; as elm, maple, birch, rubber, ash, chestnut, hickory, walnut, poplar, tulip, box elder, linden, palm, pine, dogwood, sycamore, magnolia.
3. Methods of propagation.
   a. Original, by cuttings, by seeds, by bulbs.
   b. Selected, by securing plants from a nurseryman or florist.
   c. How to grow from cuttings.
      (1) Select in the fall after the sap has gone down.
      (2) Plant in a sand bed about six or eight inches deep, located in a sunny, well-drained spot.
      (3) Cut the twigs slantingly and about six inches long

(4) Set them upright in the sand, four inches deep. Water at the time and during the winter. Keep the bed covered with straw, possibly also with brush.
(5) Transplant in the spring when the cuttings show calluses. Prepare the ground by working it to a depth of six inches; then reset the cuttings three inches apart, in rows fifteen inches apart.
(6) Cut back to twelve or fifteen inches about Aug. 15.
(7) Transplant to permanent location about Nov. 1-15.

e. How to grow from seeds or bulbs.
(1) Explicit instructions are usually given with each kind of plant in the catalogs of florists, nurserymen, seedgrowers, etc.
(2) Bulbs are usually planted in the fall in boxes, in covered ground, or in earthen pots.
(3) The schoolhouse windows and yard can be made very attractive, instructive, and restful to the pupils with a little care and expense.

f. How to secure help.
(1) From the history of Arbor Day, learn its meaning.
(2) Study the suggestions in Arbor Day pamphlets.
(3) Study pictures and articles in books and magazines.
(4) Examine the arrangement of trees, shrubs, and flowers in yards, parks, etc.
(5) Study yourself the art of conventionalizing in Drawing, and show how plants help to beautify homes, clothing, etc.
(6) Make clear what is meant by landscape gardening, orchard, park, grove, forest, etc.

Famous Trees

1. The Pennsylvania treaty with the Indians was concluded under a large elm tree in Pennsylvania. The spot is now marked by a monument.

2. The "Liberty Elm" stood upon Boston Common. The Yankee Schoolmaster who planted it years before the Revolution dedicated it to the liberties of the colonists.

3. "Washington Elm" was so named from the fact of Washington's having first taken command of the Colonial army under its branches.

4. "Charter Oak." In order to quell the growing spirit of self-government in the Connecticut Assembly in 1687, King James of England sent Andros across the sea to Hartford to demand the surrender of the charter under which the people were governed. Now the charter guaranteed them certain rights which they did not wish to give up; so, when the charter was brought to the Assembly room, according to a plan made before, the lights all went out. When the room was relighted the charter was nowhere to be found. After three years it was brought from its hiding-place in a hollow oak. The chair used by the president of the United States Senate is made of the wood of this tree (which was blown down in 1856).

5. A beautiful sycamore in Ohio was planted by the Cary sisters and is called the "Cary Tree."

6. A twig from the weeping willow at Napoleon Bonaparte's grave at St. Helena was transplanted to Copp's burying ground near Bunker Hill.

Questions for Study

Do plants sleep? Pull some clover leaves and take them into a lighted room. What do you find? Examine in the same way the oxalis, the bean, the dandelion, the morning-glory, the four-o'clock, and others. If you had a big variety of flowers you might almost tell time by them. At four in the morning the blue chicory wakes up; at five, the poppy and morning glory; at six, the dandelion; at seven, the water lily; at eight the pimpernel; at nine the tulip and marigold; but the sleepy sweet

pea doesn't wake up until noon. Some of them hardly see any daylight at all. The four-o'clock opens its petals at four; then, at six, the evening primrose. Have you ever seen the night-blooming cereus?

Some of the uses of trees are to add beauty to scenery; to make the air more pure by giving off oxygen; to increase and save rainfall; to prevent floods; to act as windbreaks; to help form soil; to furnish fuel; to make homes for birds and other animals, and to give material for homes for man; to furnish fruits for food; seeds, leaves, and bark for drink; bark for tanning and for cork; sap for turpentine, rubber, sugar; fiber for cordage, brushes, and woven fabrics; roots, wood, and leaves for dyes; roots, bark, and leaves for drugs, etc.

BIRD DAY

I. Economic Value of Birds.
   1. To the gardener or florist.
      a. In the destruction of insects, generally, larvae and eggs, ants, weed seeds, beetles, etc.
      b. In fecundating flowers.
   2. To farmers.
      a. In destroying weed seeds, insects generally, grasshoppers, cutworms, white grubs, weevils, crickets, rats, mice, gophers, ground squirrels, etc.
      b. In pollination.
   3. To fruit raisers.
      a. In destroying cankerworms and other worms, insects, etc.
   4. To people generally.
      a. In supplying ornaments.
      b. In furnishing food.
      c. By their songs.

II. Common Birds.

Study the habits of each and determine whether it is a valuable or a destructive bird.

English sparrow,
Field sparrow,
Meadow lark,
Horned lark,
Barn swallow,
Blackbird, or bronzed grackle,
Redwing blackbird,
Cowbird,
Turtle dove,
Flicker,
Red-headed woodpecker,
Yellowhammer,
Robin,
Kingbird.
Goldfinch,
Sparrow hawk,
Cooper's hawk,
Duck hawk,
Hoot owl,
Screech owl,
Crow,
Wren.

Suggestions for Study and Use

1. Make a list of the birds of your neighborhood and learn to recognize each by sight or call. Learn their nesting and feeding habits. Determine whether to protect or exterminate, and why.

2. Make a complete study of at least one bird. Collect pictures of different varieties of that kind of bird, also of its nest and eggs. Study habits of migration, association with other birds, etc. Learn of the natural enemies of young or mature birds; about bird eggs, etc.; and see how you can help protect all.

3. If you have a camera, make a picture history of an individual bird or pair of birds, taking them in various attitudes (gathering materials for nest building, sitting on the nest, singing, feeding their young, teaching the young to fly, etc.). The goldfinch will be found especially interesting, but even the crow or the hawk will be well worth studying.

4. These birds sing on the wing:

Indigo bird,	Bobolink,	Horned owl,	Nighthawk,
Meadow lark,	Ovenbird,	Kingfisher,	Song sparrow,
Purple finch,	Kingbird,	Swallows,	Redwing blackbird,
Goldfinch,	Baltimore oriole,	Chimneyswift,	Pipit or titlark,
			Mockingbird.

5. It is said a caterpillar devours six thousand times its own weight during a single month. Think what some of the birds do for plant growth in destroying caterpillars.

6. A single flicker has been found to contain 5,000 ants. The mourning dove eats no insects, but the stomach of one was found to contain nearly 10,000 weed seeds. The stomach of a dickcissel was examined and found to contain 27 grasshoppers.

7. Learn what your own state has done and is doing to protect native game birds.

8. Why do we have Bird Day?

9. Poems: *How the Woodpecker Knows,* W. J. Long; *The Brown Thrush,* Lucy Larcom; *Don't Kill the Birds,* Colesworthy; *The Oriole's Nest; The Blue Jay.*

MANUFACTURED FROM FARM PRODUCTS

I. Foods for Man.
   1. From plants.
      Flour, meal, sugar, syrup, glucose, starch, breakfast foods, cotton-seed oil, canned goods, vegetable butters, grape juice, sauerkraut, macaroni, raisins, pickles, sauces, vinegars.
   2. From animals.
      Ham, corned beef, bacon, lard, dried eggs, tallow.

II. Food for Lower Animals.
   Hay, bran, silage, ground food, oil cake.

III. Clothing.
   Woolen goods, linen goods, leather goods, cotton goods, silk goods, buttons.

IV. Dairy Products.
   Butter, cheese, condensed milk.

V. Orchard Products.
   Preserves, brandies, olive oil, fruit butter, dried fruits, canned fruits, candied fruits.

VI. Forest Products.
   Lumber, paper, shingles, wooden ware, tanbark, stoppers.

VII. Chemicals and Medicines.
   Fertilizers, tar, beer, turpentine, linseed oil, whiskies, poisons, pitch.

VIII. Miscellaneous.
   Beeswax, buttons, rope, paper money, combs, matting.

IX. Tobacco Products.
   Cigars, cigarettes, snuff, chewing tobacco, smoking tobacco, insect destroyers.

ASSOCIATED INTERESTS

1. Forests and Forestry. See Special Article.
2. Horticulture. See body of the work.
3. The Farmer and the Market. See Business Economics.
4. Transportation, Commerce, Reclamation. See Special Articles, also see the body of this work.
5. Agricultural Colleges and Experiment Stations. See Special Articles in the body of this work.

CORN

History
- Where first found
- First cultivation by white man
- Its introduction into Europe

Description
- Stalk
  - Size, structure
- Leaves
  - Appearance, position
- Flowers
  - Tassel, silk
- Fruit—ear
  - Cob, kernels

Kinds
- Flint
- Dent
- Sweetcorn
- Popcorn

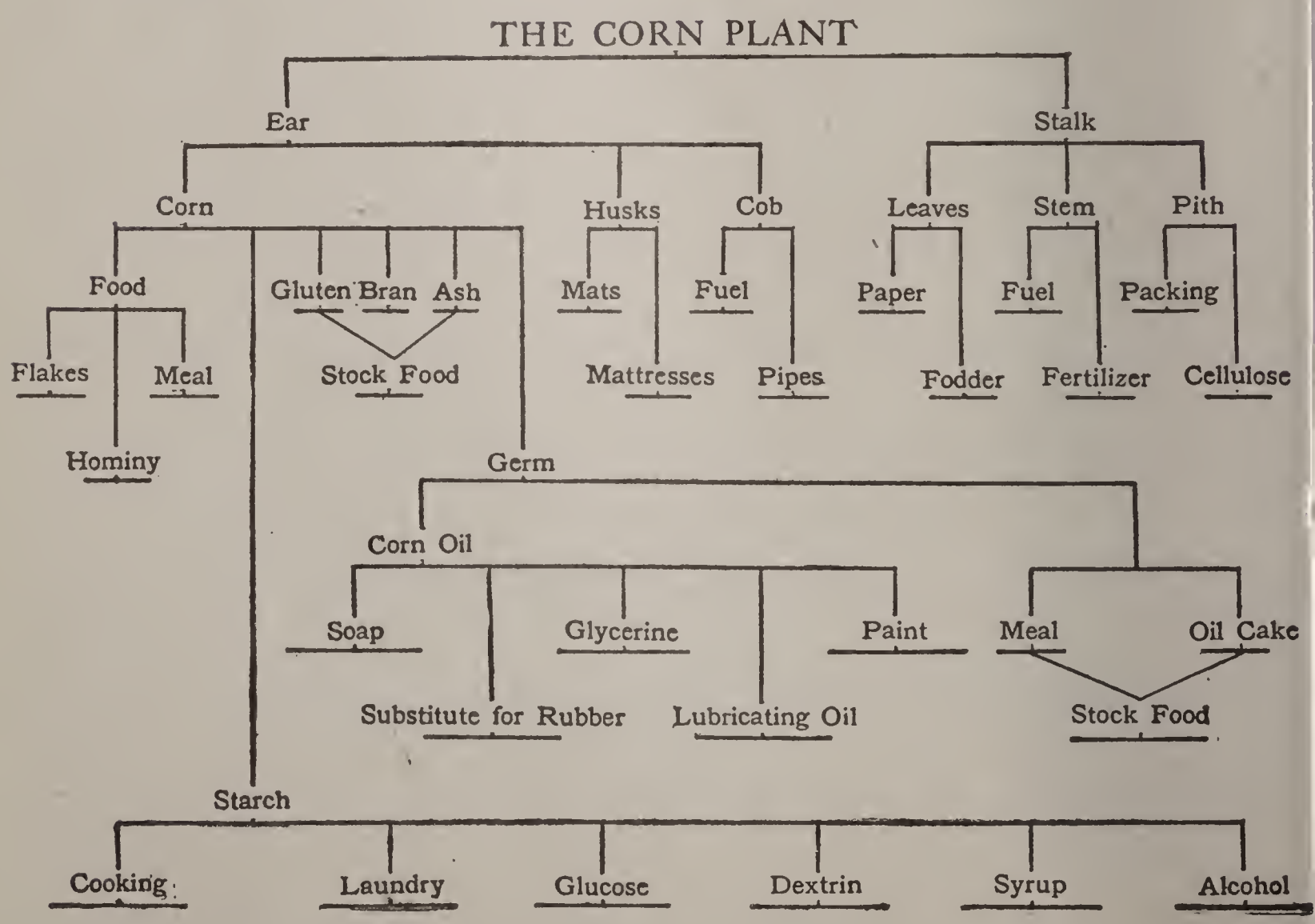
Culture
- Where
  - United States—chief states
  - Other countries
- Seed
  - Selection

Culture—continued
- Plant, ear, kernels
- Testing
  - Importance, method
- Preparation soil
  - Kind required
  - Fertilization
  - Plow, disk, harrow
- Planting
  - Time, hills or rows
  - Machinery
- Cultivation
  - Purpose, method, duration
- Harvesting
  - Time, method, machinery
  - Silage, shredding, husking, shelling

Marketing
- Domestic
- Foreign

Enemies
- Insect pests
- Diseases

Uses
- See below



CORN

1. Mature Plant.
2. Husker and Shredder.
3. Sweet or Sugar Corn.
4. Pop Corn.
5. Dent Corn.
6. Flint Corn.
7. Kernels or Grains.
8. A Sprouted Kernel.
9. A Young Plant.
10. Cross-section of Kernel.
a, Hull; b and c, Seed Food; e, Embryo stem; f, Embryo root.

SUGAR

Cane

Beet

Maple

SUGAR

Composition

Carbon, hydrogen, oxygen
Its chief property—sweetness

Sources

CANE
- Where grown
- Description of plant
- Raising the cane
  - Suitable land
  - Planting
  - Cultivation
  - Topping
  - Stripping
  - Cutting
- Sugar Mills
  - Crushing
  - Boiling
  - Refining
  - Granulating

BEET
- Where grown
- The beet plant
- Field Culture
  - Planting
  - Cultivating
  - Harvesting
- Factories
  - Slicing
    - (See above)

MAPLE
- The tree
- Tapping
- Boiling

MISCELLANEOUS
- Sorghum
- Glucose
- Milk
- Fruits
- Honey, etc.

Refineries

- Size, equipment
- Operation, location

Production and Consumption

WORLD PRODUCTION
- Cane
- Beet
- Total consumption by countries
- Amount used per capita

Questions on Sugar

Where is sugar cane supposed to have been first cultivated?
How many pounds of sugar will a ton of cane yield? A ton of beets?
Do you know if the sugar on your table came from cane or beets?
Is there any difference in quality? In price?
How is the coloring matter removed from the beet or cane juice?
What name is given to the crushed cane and what use is made of it?
What color are sugar beets?
Is the pulp after removal of the juice of any value?
What is brown sugar? Loaf sugar? Molasses?
How does sorghum differ from sugar cane?
What is grape sugar? How does it differ from ordinary sugar?
How many pounds of sugar is consumed by each person in the United States per year?
Is glucose a form of sugar? What is its main source?
How often should a cane field be replanted?
How is sugar tested for purity?
What time of year does maple sap run?

HOME ECONOMICS

It is often said that no nation can rise above its homes. Is there a word capable of suggesting a wider range of ideas than this word *home?* To the ancient Roman his home was the abiding place of his household gods; to the medieval baron it was the castle where he maintained his retinue and from whence he sallied forth to his conquests; to the pioneer it was a retreat from his struggles with the forces of nature, the spot where he realized the results of his efforts to live the free, untrammeled life of his convictions.

Today it means to some little more than the place where meals are served and lodging is secured; to others a retreat from the day's labor in the field or at the desk; and to still others a means for enjoying social intercourse with friends and acquaintances.

Whichever of these various phases of home life may contribute to man's enjoyment and to the better realization of what life holds for him, there must be a careful adjustment of household machinery that this may be achieved. The home must first be established, and all the countless minutiae of house building and house furnishing be given thoughtful consideration. After this is accomplished the problem has merely been stated. Its solution demands careful thought and execution each recurring day, that home life shall not be disturbed by any undue friction of the household machinery. More and more attention is being paid to acquiring skill in the performance of the various activities of household routine. Nearly all universities that admit women, normal schools, industrial institutions, many high schools, and even some country schools now offer courses in at least some of the departments in home economics.

The following outlines dealing with these different phases of household science are designed to be suggestive along the various lines treated. By consulting the articles referred to in the body of this work a more comprehensive treatment may be secured than would be possible in a few single articles dealing with these subjects.

THE HOME

THE HOUSE AND GROUNDS—PUBLIC AND PRIVATE HEALTH—SUGGESTIONS AS TO IMPORTANT ECONOMIES—HOME LIFE

I. EVOLUTION OF THE HOME.
   1. Need of shelter.
   2. Kinds.
      a. Primitive: cave, hut, snowhouse, tent, tepee, tree dwelling, lake dwelling.
      b. Ancient: cave, cave-temple, pagoda, palace, Taj Mahal.
         (1) Homes for the Gods.
         (2) Homes for the priests and Deities.
         (3) Homes for the wealthy.
         (4) Homes for the dead.
         (5) Homes for the common people.
      c. Medieval: Baronial hall, castle, villa, hut, houseboat.
      d. Colonial: mansions, log cabins, plaster house.
      e. Modern: flat building, bungalow, cottage, house.

3. Development (from being merely a refuge to having many aspects).
    a. Shelter, sleeping place, depository.
    b. Workshop and factory as well as home.
    c. As the center of family life.
    d. A place for study, invention, literary improvement, etc.
    e. For the preparation of food.
4. Comparative study of modern homes.
    a. Local: city, country; temporary, permanent.
    b. In different sections.
    c. Newer and older homes: advantages; disadvantages.

(Note how the character of each depends on geographical position, wealth of owner, available material, etc.)

(See articles on ARCHAEOLOGY, MOUND BUILDERS, LAKE DWELLINGS, TEMPLE, TAJ MAHAL, PUEBLOS, HOUSE-BOAT, BUNGALOW, and INVENTIONS.)

II. LOCATION.

1. Site: elevation, soil, slope, natural drainage.
2. Exposure to wind and air; to moisture; to disease.
3. Convenience of transportation; adaptability to purpose in view, etc.

(See articles on THEBES (Egypt), ARCHITECTURE, GARBAGE, SEWAGE, RIVER, LAKE, LAKE DWELLINGS, AZTECS, CASTLES, etc.)

III. ORNAMENTATION (EXTERNAL).

1. Lawn definitely mapped considering:
    a. Area to be utilized.
    b. Proposed cost.
    c. Climatic conditions.
    d. Soil.
    e. Exposure.
    f. Local surroundings.
    g. Style, natural or formal.
2. Arrangement of trees, shrubs, or flowers.
    a. To give symmetry to the lawn.
    b. To afford a pleasing contrast in color and form.
    c. To provide for a pleasing view.
    d. To act as a windbreak or a protection against other weather troubles.
    e. To cover walls and buildings or unsightly features.
3. Walks and drives.
    a. Curved or winding on large grounds. Why?
    b. Straight and direct on small areas. Why?
    c. Material chosen with view to durability, convenience, and pleasing appearance.
4. Grass.
    a. Kind dependent on soil.
    b. Watering, fertilizing, cutting, etc.

(See articles on SOIL, CLIMATE, TREE, FLORICULTURE, ARBOR DAY, ARBOR VITAE, GREENHOUSE, GRASS, WIND, FERTILIZER, MORNING GLORY, MOWER, etc.)

IV. CONSTRUCTION.

1. House plan.
    a. The material is dependent on what is available or on plan, wealth, etc.
    b. The exterior style should be suitable to the location, or to the prevailing fashion.

c. The interior arrangement is largely dependent on the means of the family. It should always show good taste. The rooms in number, size, shape; the furniture in character and arrangement; and the lighting and heating should all be adapted to the means of the owner and to the purpose of the home.

2. Visit and study other houses before beginning to build.

V. HEATING, LIGHTING, AND VENTILATING.

1. Study different systems, as to
   a. Construction.
   b. Cost.
   c. Efficiency.
   d. Ease of operation.
   e. Adaptability.
2. Fuel and light.
   a. Combustion of fuel.
      (1) Due to consumption of oxygen.
      (2) Air condition requisite.
      (3) Heat due to the values of different fuels, such as coal, coke, oil, gas, wood, etc., and to (a) and (b).
   b. Light.
      (1) Obtained from fats, paraffine, electricity, gas, etc.
      (2) Dependent upon proper combustion.
      (3) Should be arranged with a view to (a) protecting the sight, (b) illumination, (c) safety.
3. Necessity for ventilation.
   a. As a necessity.
   b. As an aid to heating and lighting the home.
   c. As an assistance to plant life.
   d. Means for securing proper ventilation are fireplaces, movable window sashes, outdoor sleeping quarters, foul air ducts, etc.

(See articles on HEAT, the various fuels, HEATING AND VENTILATING, LIGHT, GAS, ELECTRICITY, CANDLE, LAMP, etc.)

VI. WATER SUPPLY.

1. The various sources of supply, both public and private—rivers, lakes, springs, wells, reservoirs, etc., are abundant.
2. The necessity for pure water—for drinking, cooking, bathing, etc., can and ought to be met.
3. Purification may be obtained.
   a. By the operation of natural laws.
   b. Artificially, filtration, boiling, etc.
4. Explanation and use of hard water, "soft water," "mineral water," etc.

(See articles on WATER, RIVER, LAKE, ARTESIAN WELLS, BATH, FILTER, LIMESTONE, CALCIUM, IRRIGATION, AQUEDUCT, MINERAL WATERS, PURE FOOD, WATERWORKS, etc.)

VII. DISPOSAL OF WASTE (SEWAGE AND GARBAGE).

1. May be secured by burning, burying, carting away, etc.
2. Study methods in United States and other countries.
3. Compare city and country methods.
4. Find the method best suited to your locality (dependent on the nature of the impurity, and the most available method of purification).

(See articles on GARBAGE, SEWAGE, DISINFECTANT, ANTISEPTICS, DISEASE, MINERAL WATERS, HOUSE FLY, FORMALIN, TYPHOID FEVER, and SANITARY SCIENCE.)

VIII. PLUMBING.

1. Necessity for good work because of danger of infection from defective pipes.
2. Importance of knowing good fixtures by study in their parts and uses.
3. Location with reference to cleaning, repairing, freezing.
4. Examine sketches of plumbing systems, especially in connection with heating apparatus.

(See articles on PLUMBING, DISEASE, BACTERIUM, FILTER, etc.)

IX. FINISHING.

1. Exterior.
   a. Material and color dependent on locality, taste, exposure to sun and wind, etc.
2. Interior.
   a. Floors, walls, ceilings from the standpoint of good taste.
   b. Material and colors governed by durability, cleanliness, suitability, and artistic effect.
   c. Samples of wood for all interior work should be studied.
   d. Wall paper should harmonize with woodwork and with the purpose of the room.
   e. Various finishes and varnishes should be studied.

(See articles on MAHOGANY, SYCAMORE, VARNISH, etc.)

X. FURNITURE AND FURNISHINGS.

1. Their economic value and suitability to the needs of each room.
2. Their sanitary value and ease of keeping clean.
3. Their cost, both when new and for repairs.
4. Their artistic value.
5. Lines, colors, and forms depend on the style of the furniture and finishing; also on the size, height, lighting, and exposure of the rooms, halls, etc.
6. The quality of the hangings, paper, rugs, etc., should match the quality of the wood, its finish, etc.
7. Suitable furniture should be selected for every room. In doing this make everything conform to four conditions—usefulness, adaptability, good appearance, and ease of keeping clean.
8. Select necessary articles. Superfluous ones show bad taste or indicate a desire for display.

(See articles on ART, SANITARY SCIENCE, LIGHT, RUG, PAINTINGS, FURNITURE, etc.)

XI. CARE OF THE HOME.

1. The House.
   a. Learn its source of dirt—garbage, dust, etc.
   b. Prevent its accumulation by frequent cleaning.
   c. Find how to clean ceilings, floors, walls; rugs, curtains, furniture; windows, mirrors, etc. (Even the wealthy should know how to see that the work is properly done by servants.)
   d. Acquaint yourself with the sanitary importance of frequent and thorough cleaning:
      (1) In the parlor and living rooms.
      (2) In the bedrooms.
      (3) In the kitchen and pantry.
      (4) In the yard and garbage cans.

e. Disinfect as well as clean.
f. Prevent the entrance of vermin, injurious bacteria, etc.
g. In inspecting the laundry, observe:
(1) The water used in washing (hard or soft, etc.).
(2) The machinery employed—tubs, wringer, board, washing machine.
(3) The materials—soap, starch, bluing.
(4) The materials used in removing stains.
(5) The effect of heat, water, cleaning agents, sunlight, on different fabrics and dyes.
(6) How the ironing is done.
(a) Machinery needed.
(b) Temperature tests—for wood or coal; for gas; for electricity.
(c) The processes of starching, waxing, etc.
(7) Care of laundered clothes.

2. The yard.
a. Prevent the accumulation of garbage.
b. Keep away dust and filth.
c. Beautify with shrubs, flowers, trees, etc.

(See articles on SANITARY SCIENCE, GARBAGE, LOOP, HOUSE FLY, BEDBUG, BEETLE, COCKROACH, BACTERIUM, CALCIUM, STARCH, DYE, WAX, etc.)

XII. CARE OF THE PERSON.

1. In considering cleanliness keep in mind:
a. The bodily excretions.
b. How to keep the skin alive, healthful, and attractive.
c. The uses of the bath (hot or cold); rubbing, etc.
d. The need of exercise and fresh air.
e. The care of the teeth, nails, feet and hands, hair.
2. In determining a choice of diet, give due weight to:
a. The amount of water to cleanse the system or to aid digestion.
b. The relative value of vegetables, fruits, and meats.
c. The importance of regularity (a fixed time for meals and no eating between the times).
d. How the wholesomeness of food is determined by individual conditions, the kind of work, etc.
3. Do not forget that regular and a proper amount of sleep add to the general healthfulness of the body, prevent worry, aid right thinking, and help to make a pleasant disposition.
4. Study personal health in its relation to public health.

(See articles on LIVER, BATH, SLEEP, TEETH, HAIR.)

XIII. CARE OF THE FAMILY.

1. General Care.
a. Order, cleanliness, good food.
b. Each member has a definite place in home economy.
c. Relation of the family to civilization and good government.
2. Special Care.
a. Care of very young and of very old persons requires patience, kindness, foresight, etc.
b. In caring for the sick, observe:
(1) The sick room, its arrangement, and that it is neat, dainty, and fresh.

(2) The bathing, feeding, entertaining, etc., of the patient.
(3) The qualifications of the nurse and her care of herself.

c. Infectious and contagious diseases need watching as to—
(1) The germ theory about air, water, food, etc.
(2) Injurious bacteria from the standpoints of:
(a) Conditions favorable to growth (dirt and warmth).
(b) Conditions unfavorable to growth (cleanliness, fresh air).
(c) The abolition of the common towel, drinking cup, etc. Why?
(d) Animals and insects as carriers.
(e) The isolation of the patient.

3. Public Care.
a. Read the suggestions of city and state boards of health.
b. Avoid the sources of disease in the street, on the cars, in public buildings, etc.
c. Keep the laws to protect the public from injury.
d. Show by example the importance of clean streets, of keeping down the dust, of sprinkling and oiling, and of the destruction of the breeding places of flies and mosquitoes.
e. Give aid to proper examination of the milk, water, and food supply, and to laws to secure quarantine and disinfection.

(Read articles on CIVICS, HOSPITAL, DISEASE, BACTERIUM, DISINFECTANT, INSECTS, HOUSE FLY, MOSQUITO, SANITARY SCIENCE, etc.)

XIV. EMERGENCIES.

1. Render first aid to the injured as follows:
a. Fainting or swooning—lay flat, give air, sprinkle with cold water.
b. In bleeding, bind with ligament, above if artery, below if vein.
c. In burns and scalds, apply oils, lard, soda, etc. Keep out the air.
d. In drowning, get out the water, get in the air.
e. In suffocation, loosen the clothing, get in the air. In every case call in a physician promptly.
2. Different kinds require different treatments. Too extensive to be described here. (See article on POISON.)
3. Learn the use of stretchers and cots; how to apply antiseptics, bandages, splints, and poultices; learn how to apply the Red Cross outfit by visiting a good hospital or some Red Cross headquarters.

(See articles on FAINTING, DROWNING, SODA, POISONS. HOSPITAL, RED CROSS, ARTERY CIRCULATION, ANTISEPTIC, etc.)

XV. MAINTENANCE OF THE HOME.

1. Study the relation of the individual to the whole family.
2. Consider the household work a common duty.
3. The management should be judicious; expenses governed by apportionment of income.
4. In buying give consideration to:
a. The most economical way.
b. The merits and disadvantages of cash and charge accounts.
c. Whether to buy in small or large quantities.
d. A systematic plan.
(1) Plan meals for week and estimate the cost. Compare estimate and results.

(2) Plan outfits of clothes for different members and estimate the cost.
(3) Plan a supply of household linen, bedding, etc. Estimate cost.

e. Keeping accounts of expenditures and estimates, and planning how to meet them out of the income at your disposal.

5. A daily and weekly program should be made out. In this arrange tasks so as to insure performance of the more important; to secure sufficient change of work to avoid fatigue; and so as to make the task suit the time of the member it is allotted to.
6. Provide for leisure time and how to use it to the best advantage.

XVI. RELATION OF THE HOME.

1. Its relation to individual members in the way of training, habits, etc.
2. Its relation in the neighborhood in the way of encouraging friendliness and hospitality, and of discouraging extravagance, carelessness, and bad management.
3. Its relation to the state in the way of securing good citizenship and permanent government.

(See article on CIVICS.)

NOTE—Much additional information may be secured by looking up the General Index and the topics noted in the Special Index.

DOMESTIC SCIENCE

AS APPLIED TO FOOD

I. THE HOME LABORATORY—THE KITCHEN.

1. Location—size, shape, air, light. On what do these depend?
2. Equipment—range, tables, sink, refrigerator, pantry, etc. On what principle to select?
3. What arrangement for ease of use?
4. Care of utensils.
   a. Reasons for cleanliness, order, neatness, etc.
   b. Steps to secure durability, freedom from injury, etc.
5. Fuels.
   a. Values as to
      (1) Heat (coal, wood, gasoline, oil or fat, etc.).
      (2) Cost of each and when best to use.
      (3) Convenience.
      (4) Cleanliness.
   b. Combustion.
      (1) Conditions necessary to good combustion
      (2) Process, and how to aid it. Why important?
      (3) Control of combustion in stove, or how to have a "quick fire" or a "slow fire."
      (4) Products of combustion: Blaze, heat, smoke, ashes, clinkers, soot.
      (5) How dispose of these products to the best advantage?

(The reader will find much valuable material in the body of this work under the following heads: LIGHT, COLD STORAGE, OZONE, CARBON DIOXIDE, HEATING AND VENTILATING, ESKIMO, GASOLINE, COAL, CHARCOAL, LAMPBLACK, CHEMISTRY.)

Labor Saving Devices in the Home

6. Linen—fabrics suited for kitchen use:
    a. The dish cloth for washing dishes and utensils.
    b. The tea towel for wiping dishes.
    c. The hand towel for keeping the hands and face clean.
    d. Care of linen: As to cleanliness, as to right use, as to its place when not in use, as to number, etc.

II. Food—Its Kinds, Properties, Use, Etc.

1. Water.
    a. Composition of pure water. How to determine if water is pure enough.
    b. Classes.
        (1) Distilled: object, method, taste, value, use in ice, etc.
        (2) Mineral: natural, artificial; kinds, uses, etc.
        (3) Hard: composition, use in medicine, use as food proper, etc.
        (4) Soft: composition, when beneficial.
    c. Uses.
        (1) In cooking other food or extracting its properties.
        (2) As a cleaning agent for the system.
        (3) Softening and dissolving other food material so the digestive juices can prepare it to be absorbed by the body.
        (4) In assisting the digestive organs, especially when hot.
        (5) It may cause disease by carrying various infectious materials into the system.
        (6) In dissolving and helping to remove waste from the body.
        (7) In keeping the organs in good condition.
    d. Purification.
        (1) The filter, its operation, its use, kinds, cleaning, etc.
        (2) Boiling sterilizes water by removing organic and other impurities.

(See articles on Fermentation, Tea, Coffee, Chocolate, Beer, Cider, Calcium, Pulque, Wine, Water, Distilling, Ice, Alimentary Canal, Filter, Aqueduct, Spring, Waterworks, Circulation, Artesian Wells, Rain, Potassium, Disease, Typhoid Fever.)

2. Fruits.
    a. Fresh.
        (1) Composition and food value of uncooked fruit; of cooked fruit.
        (2) Methods of preparation with sugar, with spices, with cream, and the value of each as a food.
        (3) Different ways of cooking: stewing, baking, boiling, roasting; their advantages and disadvantages.
        (4) The cause of decay; how to prevent it.
    b. Preserved.
        (1) Purpose to prepare fruits for future use.
        (2) The drying method.
            (a) Fruits suitable should be selected.
            (b) Whether it is best to use the air, or an oven, or kiln.
            (c) How to protect from flies and other insects.
            (d) How to keep the fruit good until it is ready to be used.

(3) Canning.
(a) Different methods.
(b) Why seal?
(c) How prevent fermentation?
(d) What are the signs of fermented fruit?
(4) Pickling.
(a) Uses of vinegars and spices.
(b) When can sugar be used?
(5) Preserving in syrup. Is the amount of cooking required the same as for canning?
(6) Jellies, jams, and "butter." What fruits are suitable? How prepared?

c. Injurious preservatives. (See article on PURE FOOD LAW.)
d. Compare fresh and preserved fruits.
(1) As to cost.
(2) As to food value.

(See articles on PURE FOOD LAW, FRUIT TRADE, PLANTS, SCURVY, CHOLERA MORBUS, SPICE, VINEGAR, SUGAR, SUGAR-CANE, WILEY, FERMENTATION, FLIES, PRESERVES, etc.)

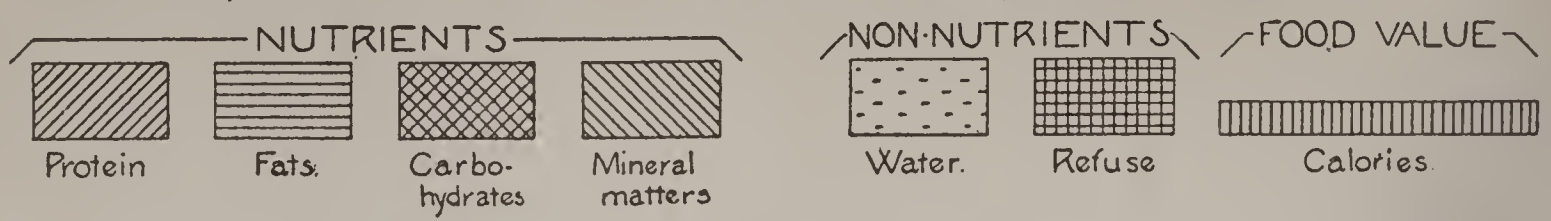
3. Vegetables.
a. Elements composing each kind.
b. Classes.
(1) As to composition or food elements.
(2) As to part of the plant used.
(3) As to use and value as a food. Why?
c. Methods of cooking and the comparative value.
(1) Boiling, stewing, steaming, roasting, baking, scalloping, creaming, etc.
(2) Which is best for any particular vegetable?
d. Study of starch in vegetables.
(1) In what form found?
(2) Where stored?
(3) How best rendered digestible?
e. Dressings and sauces: purpose, how made, food value?
f. Cream soups. Why is this form valuable as a food?

(See articles on VEGETABLES, VEGETARIAN, STARCH, BULB, INSECTS, BEET, BEAN, CABBAGE, CANTALOUPE, WATERMELON, EGG PLANT, LETTUCE, PUMPKIN, PARSNIP, CHEMISTRY, etc.)

4. Cereals.
a. Composition or food elements.
b. When and how manufactured. Why?
c. Food value: when cooked at home. Why? When manufactured. Why?
d. Comparative study of different kinds:
(1) As to nutrition.
(2) As to cost.
e. Ways of cooking.
(1) Fireless cooking. What is it?
(2) Double boiler. Why advantageous?
f. Best methods to test as to flavor, digestibility, etc.

(See article on OATS, WHEAT, CORN, CEREALS, BUCKWHEAT, RYE, BARLEY.)

Composition of Twelve Important Foods



Protein compounds, e g., lean of meat, white of egg, casein (curd) of milk, and gluten of wheat, make muscle, blood, bone, etc.

Fats, e.g., fats of meat, butter and oil
Carbohydrates, e.g., starch and sugar } serve as fuel to yield heat and muscular power.

Nutrients, etc., p.ct.	10 20 30 40 50 60 70 80 90 1
Fuel value of 1 lb.	400 800 1200 1600 2000 2400 2800 3200 3600 40
Whole milk	
Cheese, whole milk	
Butter	
Beef, round	
Mutton, leg	
Pork, loin	
Eggs	
Wheat bread	
Corn meal	
Oat meal	
Beans, dried	
Potatoes	

5. Sugar.
   a. Difference in composition between sugars, starches, and gums.
   b. Forms in use: loaf, granulated, pulverized, brown.
   c. Food value of each: effect on digestion of children and grown persons; excessive use and its results.
   d. Uses in food.
      (1) On fruit or cereals.
      (2) In tea, coffee, or cocoa.
      (3) Frostings, candies, etc.
      (4) Seasoning vegetables.
      (5) As a preservative.
   e. Compare homemade candies and those purchased:
      (1) As to cost.
      (2) As to taste.
      (3) As to purity.
   f. Importance of knowing about different adulterants.

(Look up in the body of the work articles on SUGAR, SUGAR-CANE, SORGHUM, MAPLE, BEET, CONFECTIONERY, TEA, COCOA, ADULTERATION, and PURE FOOD LAW.)

6. Milk.
   a. Composition of pure milk and how purity may be ascertained.
   b. Percentage of water, fat, protein, carbohydrates, salts, etc., in good milk.
   c. Food value of each.
   d. Dangers from adulerated milk to children especially; milk sickness, etc.
   e. Manufactured forms, how prepared, and nutritive value of each.
      (1) Butter.
      (2) Cheese.
      (3) Condensed milk and cream (or milk with most of the water evaporated by special process).
      (4) Milk powder (milk with all water removed).
      (5) Modified (changed to make infant food).
      (6) Certified (milk produced and handled under sanitary conditions).
      (7) Malted (prepared as a food, beverage, or medicine).
      (8) Milk sugar or lactose.
   f. Effect of different agencies used in manufacturing.
      (1) Heat kills germs but also changes the character of the milk.
      (2) Acids—borax, boric acid—conceal dirt and injure health.
      (3) Rennet curdles milk. When is it beneficial?
      (4) Bacteria: grow best in warm milk; when beneficial; when injurious.
   g. Care of milk.
      (1) In the dairy: importance of clean cows, barns, cans, etc.
      (2) In transit: necessity for ice, rapid delivery, etc.
      (3) In the home: use clean bottles or pans, ice, covers, etc.

(See articles on MILK, MALT, RENNET, CHEESE, BUTTER, ADULTERATION, CHALK, SANITARY SCIENCE, BACTERIUM, ACID, DAIRY, and FERMENTATION.)

7. Cheese.
    a. Composition and how made.
    b. Kinds: "Cottage Cheese"—how prepared; American, Limburger, Neuchaftel, Swiss, Brie, and when to use.
    c. Digestion and food values of cooked and uncooked cheese.
    d. Effect of heat, bacteria, coloring matter, etc., on cheese flavor.
    e. Use as food, etc.
8. Eggs.
    a. Parts and their composition.
    b. Food value, raw and cooked.
    c. Methods of cooking:
        (1) Boiling, soft and hard.
        (2) Poached.
        (3) Omelet.
        (4) Fried.
        (5) Effect of different methods on digestibility.
    d. Methods of preservation:
        (1) Dry salt.
        (2) Lime, salt and water.
        (3) Water glass.
        (4) Cold storage.
    e. Methods of testing eggs.
    f. Combinations of milk, eggs, and cheese.
        (1) Milk and egg drinks.
        (2) Custards.
        (3) Omelets.
        (4) Rarebits.
        (5) Cheese and macaroni.
        (6) Cheese with toast and milk.

(Read what is said under CHEESE, LIMBURG, SWITZERLAND, EGGS, ANIMALS, COLD STORAGE, NITROGEN, MACARONI.)

9. Meats.
    a. Kinds and relative food value.
    b. Cooking.

        Purposes: to make it tender and palatable; to preserve the nutriment; to prevent putrefaction, etc.

        Methods:

        (1) General—roasting, boiling, broiling, frying.
            (a) Relative value of each.
            (b) Effect of heat differently applied.
            (c) How to extract or retain juices.
        (2) Special, or how to cook to the best advantage.
            (a) Pork, veal, poultry, fish, mutton, etc.
            (b) Heart, liver, etc.
            (c) Tough cuts
            (d) Hamburg steak.
            (e) A combination with other foods.
            (f) Meat balls.
        (3) Causes of toughness is found in the connective tissue.
            (a) Break up by cutting or pounding.
            (b) Soften by slow cooking.

(4) Uses of leftovers.
(a) Meat pies, sandwiches, meat balls, scalloped meat, hash, beef loaf, veal loaf, etc.
(b) Combined chopped cold meat and gravy to pour over toast.

c. Preservation. Study each form as to method and value.
(1) Cold Storage.
(2) Canning.
(3) Pickling.
(4) Drying.
(5) Smoking.

d. Selection of cuts.
(1) Tenderness and food value depend upon age and condition of animal.
(2) Freshness: how determine in fish, fowl, raw flesh, etc.
(3) Cut selected depends on purpose and proposed cost.
(4) Study different cuts, their use, their food value, and the cost of each.

e. Compare cost of:
(1) Same cut from different animals.
(2) Fresh and preserved meats.
(3) Meat and meat substitutes.

f. Study the laws concerning meats.

(Read articles on MAMMALS, CLAMS, OYSTERS, MACKEREL, SALTPETER, SARDINES, BEEF, BEAR, WALRUS, SEAL, HOG, SHEEP, CHICKEN, FISH, DEER, SNAILS, CRAYFISH, LOBSTER, TORTOISE, TURTLE, MOOSE, OPOSSUM, HIPPOPOTAMUS, etc.)

10. Gelatine, or animal jelly.
a. Source and composition.
b. How prepared or obtained.
c. Properties, and value as a food.
d. Compare the gelatine of bone and meat with fruit jelly, with gluten, and with commercial gelatine.

(Read what is said about GELATINE, ISINGLASS, TENDON, FRUITS, GLUTEN, etc.).

11. Legumes and nuts.
a. Composition and difference.
b. Food value as to digestibility and use in the body.
c. As substitute for meats.
(1) Nuts and their different uses as foods.
(2) Baked and boiled beans.
(3) Pea and lentil soups.

(See articles on NUTS, PEA, PEANUT, WALNUT, BEAN, ALMOND, BRAZIL NUT.)

12. Fats.
a. Composition and how distinguished from lean meat.
b. How distinguished from oils.
c. As a food.
(1) Digestibility: of animal fats; of plant fats.
(2) Physiological use, especially in cold climates.
d. Structure of fatty tissue in animals.
e. Kinds of animal fats:
(1) Butter fat.

(2) Cottolene. From what obtained?
(3) Lard. With what often mixed? Does this injure it as a food?

f. Kinds of plant fats.
g. Uses.
(1) In shortening.
(2) In seasoning.
(3) In frying.
(4) As raw food.
h. Effect of application of heat.
i. How to render and clarify.
j. How to use to prevent:
(1) Soaking of food.
(2) Burning and scorching.
(3) Danger from combustion.
(4) Injury to the system.
k. Compare the cost of different kinds of fats.
l. Study the principle and the best methods of soap making.

(Read articles on FATS, OILS, ESKIMO, SEAL, WHALE, COTTON, SHEEP, PEANUT, LARD, SALMON, BUTTER, NUTS.)

13. Combination.
a. Flour mixture.
(1) Manufacture and composition of flour.
(2) Kinds of flour:
(a) As to grain used.
(b) As to manufacture.
(c) As to constituent elements.
(3) Food value of each kind.
(4) What it is and how produced.
(a) Soda, or bicarbonate of sodium, or saleratus
(1) Composition; distinction from sal soda.
(2) Chemical action when combined with sour milk.
(3) Use alone; as part of a baking powder.
(b) Cream of tartar.
(1) Source, how made, appearance, taste.
(2) How used alone; as part of baking powder.
(c) Baking powder.
(1) Composition.
(2) Effects of moisture and heat.
(3) Common adulterants—how detect.
(4) Residues, and physiological effect.
(d) Yeast.
(1) Origin in bacteria.
(2) Manufacture.
(3) Fermentation effect, together with the conditions necessary and the conditions unfavorable.
(4) Effect when mixed with flour.

COFFEE IN BLOOM—Costa Rica

(5) Elasticity of gluten and albumen of egg.

(See articles on FLOUR, YEAST, SODIUM, CREAM OF TARTAR, WHEAT, BUCKWHEAT, BAKING POWDER, YEAST, ADULTERATION, FERMENTATION.)

b. Bread made from flour.

(1) Kinds: with yeast; without yeast; unleavened bread; rye bread.

(2) Methods.

(a) In yeast or raised bread.

Things required are yeast, flour, salt, warm milk or water, lard or butter.

Temperature required at making and while baking.

Milk for moisture, when not desirable.

Why souring sometimes takes place.

(b) Quick breads.

The leaven used is usually compressed yeast.

(c) Baking.

Temperature and time; importance of uniform heat.

Chemical changes and their causes.

(d) After baking.

Changes taking place in the crumb or crust.

Effect of stale bread on digestion.

(3) How prevent mold or drying out; how protect from meal moth and meal worm.

(4) Compare homemade bread and baker's bread with reference to:

(a) Their appearance and contents.

(b) Their digestibility and why a difference.

(c) Cost compared with contents and value.

(5) Compare equal weights of bread and meat, potatoes, milk, etc.:

(a) As to nutriment.

(b) As to cost, considering food value, etc.

(6) Compare fresh bread, stale bread, and toast as to digestibility.

(Much valuable information and numerous suggestions will be obtained by reading the articles in the body of this work on BREAD, BREADFRUIT, YEAST, RYE, SALT, CORN, SODIUM, BAKING POWDER, ALIMENTARY CANAL, MOTH, FERMENTATION, MILK.)

c. Biscuits.

(1) Usually made with flour, saleratus, and milk or water, or baking powder.

(2) Light rolls usually have yeast as a leaven.

(3) Conditions necessary to secure each of these; also "beaten biscuit."

(4) Temperature and time required, and why they are different.

d. Bread made from cornmeal.

(1) Egg bread: how made, value as a food.

(2) Corn pone or hoecake: content, food value.

e. Cakes.
  (1) Classes:
    Leavened and unleavened.
    Those made with butter.
    Those made without butter.
  (2) Leavens used are baking powder and sweet milk, or soda and sour milk.
  (3) Conditions requisite for digestibility; for good flavor.
  (4) Time required for baking, and proper temperature for large cakes; for cookies.
  (5) Causes of bursting and falling.
  (6) Filling or icing: their materials, when prepared, how best prepared.

f. Griddle cakes, muffins, etc.
  (1) Variations of bread or cake.
  (2) Conditions necessary to digestibility.

(See articles on FLOUR, BAKING POWDER, BUTTER, COTTON, SODIUM, SUGAR, STARCH [CORN].)

g. Pastry.
  (1) Plain and puff paste or crust.
  (2) Proportion of flour and shortening.
  (3) Temperature and time for baking.
  (4) Relation of cooking to content for digestibility.

h. Salads.
  (1) Materials used:
    (a) Salad plants—lettuce, celery, cress, etc.
    (b) Fruits—apples, oranges, bananas, etc.
    (c) Vegetables—cabbages, tomatoes, peppers, etc.
    (d) Meats—chicken, lobster, crab, shrimp, etc.
    (e) Nuts—pecans, almonds, walnuts, etc.
    (f) Cheese.
    (g) Eggs.
    (h) Leftovers.
    (i) Oil.
  (2) Preparation.
    (a) Thorough washing of raw materials.
    (b) Crispness or freshness necessary.
    (c) Low temperature required, if cooked.
    (d) Thorough chopping and mixing.
  (3) Study color arrangement in dish.
    (a) Red of pimentos, tomatoes, beets, etc.
    (b) White of celery and eggs.
    (c) Green of lettuce, cress, etc.
    (d) Varieties of meats, fish, fruits, etc.
  (4) Salad dressings: how made; when used.
    (a) French.
    (b) Mayonnaise.
    (c) Cooked.
    (d) Cream.
  (5) Value.
    (a) As food.
    (b) As variety.
    (c) Use of small quantities and leftovers.

(Read articles on LETTUCE, CELERY, APPLE, ORANGE, BANANA, CABBAGE, TOMATO, PEPPER, CHICKEN, LOBSTER, SHRIMP, OIL, OLIVE, PECAN, ALMOND, CHEESE, EGG, BEET, CRAB.)

i. Frozen dishes.
  (1) Value as a food; danger in their use.
  (2) Kinds and their composition:
    (a) Water ices.
    (b) Sherbets.
    (c) Ice creams.
  (3) Theory of freezing.
    (a) Cause.
    (b) Freezing agents.
    (c) Construction of freezer.
  (4) Care of freezer as to cleanliness; as to use.
  (5) Cost of frozen desserts when homemade; when bought.

j. Desserts not frozen.
  (1) Custards, puddings, fruit dumplings, etc.
  (2) Value:
    (a) As food.
    (b) As variety.
  (3) Suitable combinations:
    (a) Of milk, eggs, fruit.
    (b) Of fruit, pastry, nuts.
    (c) Of rice, milk, eggs.
    (d) Make others.

(See articles on ICE, SALT, STARCH, FRUIT, RICE.)

k. Drinks.
  (1) Cocoa, water, coffee, tea, chocolate, milk, sassafras, etc.
    (a) Composition and active principle of each.
    (b) How best to prepare.
    (c) How cared for to retain strength and aroma.
    (d) Effects of drinking.
  (2) Juices of fruits.
    (a) Kinds.
      Sweet, how prepared at fruit-canning time.
      Fermented, or wines, ciders, etc.
      Distilled or other liquors, such as brandies or cordials.
    (b) Uses.
      For nourishment.
      As stimulants.
      To carry other substances.
      Value in sickness.
  (3) Plant extracts, such as peppermint cordial.

(Read what is said under CHOCOLATE, COCOA, TEA, COFFEE, PEPPERMINT, PULQUE, BRANDY, WINE, CIDER.)

III. SELECTION OF WHAT TO BUY.
  1. Plan meals for a day or a week.
  2. Make your choice depend on:
    a. Season.
    b. Condition of the market.
    c. Cost of a particular food; of a substitute.

IV. BUYING.
  1. Relative cost of large and small amounts.

2. Relative cost of cash and time purchases.
3. Relative value of personal and telephone purchases.
4. Working of pure food laws.
5. Check up bills and keep accounts. Compare with estimates.
6. Watch condition of foods as to freshness and cleanliness.
7. Give attention to care of supplies after bringing them home.

V. Preparation of Meals.
1. The order of preparation is dependent on:
   a. Time required for cooking.
   b. Time required for cooling or freezing.
2. For cooking, plan to have the materials ready when required.
3. Study how to save labor, time, and fuel.

VI. Serving.
1. Have dining-room swept, dusted, ventilated, and attractive long before mealtime.
2. In arranging the table:
   a. Use necessary things, no more.
   b. Make a choice of linen, and select appropriate china and glassware.
   c. Study arrangement with view to:
      (1) Comfort.
      (2) Pleasing appearance.
      (3) Ease of serving.
      (4) Meals to be served.
      (5) The guests, if any.
3. Order in serving.
   a. If in courses, plan for rapid, quiet removal of each course.
   b. Before serving dessert, remove all food served before, and dishes in which eaten.
4. Importance of order, quiet, and good humor at mealtime.
5. Qualities of good hostess should be carefully studied.
6. Qualities of good guests, and their relations to each other, require forethought.

The thoughtful reader will find many articles in the body of this work other than those cited as "References." These lists are not intended to be exhaustive. They will suggest new facts, new lines of thought, special methods, new uses for food, new ways of preparing food, etc. Many domestic economies which old and young need to consider, in view of the increased cost of living, are hinted at or made clear.

In the digestion of food one should consider not alone the value of the article, but of proper condition, cleanliness, attractiveness in appearance, pleasant surroundings and cordial personal relations. All through these articles on *Home Economics* the aim has been to be helpful by outline and by concrete presentation. This will aid every reader to get the most possible out of the volumes as a whole.

DOMESTIC ART

AS APPLIED TO CLOTHING

I. Purposes.
1. Adornment.
2. Protection.
3. For the sake of modesty.

(See articles on Clothing and Armor.)

II. Evolution in Styles and Materials Used.
1. Primitive, mostly skins of wild animals.
2. Ancient according to locality (toga, chiton, sandals, cap, etc.)

3. Medieval—Usually made of cotton or woolen goods.
4. Modern—Styles change rapidly and vary with the country.

(See articles on GREECE, ROME, BLOOMER, LACE, EMBROIDERY, etc.).

III. KINDS.

1. As to purpose.
   a. Underclothing, usually for protection.
   b. Outer garments, usually for ornament.
2. As to occasion.
   a. Business, marked by simplicity.
   b. School, designed for economy and adaptability.
   c. House, for ease.
   d. For street, shopping, visiting, etc.
   e. Reception, entertainment, etc., for display.
3. As to material.
   a. Animal, generally woolen, skins, buttons, etc.
   b. Vegetable, cotton, or other fiber; paper, etc.
   c. Mineral, generally jewelry, worn for ornament.
4. As to use.
   a. Suits, dresses, wraps, etc.
   b. Millinery.
   c. Laces.
   d. Embroidery.
   e. Hats, caps, etc.
   f. Boots, shoes, sandals, etc.
   g. Hose.
   h. Gloves, cloaks, etc.

IV. INVENTIONS FOR MAKING CLOTHING AND THEIR INFLUENCE ON HOME LIFE

1. Spinning wheel: its invention; its purpose; its effect.
2. Loom: has added to number, variety, and uses of goods.
3. Sewing machine: has had much to do with patterns, styles, etc.
4. Tissue paper pattern: has been of great service to designers, cutters, and home-workers.

(See articles on SPINNING, WEAVING, HARGREAVES, ARKWRIGHT, SEWING MACHINE, PAPER, FLANDERS.)

V. MODERN METHODS OF MANUFACTURE.

Centers for different fabrics. (See articles on different cities and note how manufactures have built them up.)

(See articles on ATLANTA, CHARLOTTE, N. C.; CLEVELAND, LOWELL, LYNN, PROVIDENCE, QUINCY, ILL.; WORCESTER.)

VI FIBROUS CLOTHING.

1. Its composition and structure.
2. Collect samples of raw material and study the structure under the microscope.
3. Collect samples of cloth made from this material.
   a. Test for cotton or linen.
   b. Test for wool or silk.
   c. Comparative strength of warp and woof of each.
   d. Study mordants and bleaches and their effect on goods.
4. Compare different fabrics to ascertain:
   a. Heat conduction.
   b. Absorptive qualities.
   c. Fitness for different purposes.

(See articles on FIBER, FIBER PLANTS, CALICO, PINEAPPLE FIBER, SILK, FRANCE, BLEACHING, FLAX, COLOR, MICROSCOPE, etc.)

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VII. Clothing Not Fibrous.

1. Leather (doeskin, chamois, buckskin, sole leather, uppers, etc.).
2. Fur. How does fur differ from leather? Its uses?
3. Rubber (raincoats, rubber shoes, etc.). How made?

(See articles on Tanning, Leather, Fur, Doeskin, Chamois, Buckskin, Rubber, Mackintosh, Moccasin, Boots and Shoes.)

VIII. Clothing of Unusual Fibers.

1. Cocoanut. From what part of the plant is clothing made?
2. Pineapple. How made? Where made? Usefulness?

IX. Relation of Clothing to Health.

1. Amount required.
2. Effect of undue pressure.
3. Compare value to health of loose and close weave; porous and non-porous cloth; of woolen, cotton, and silk.

X. Sewing.

1. Its history and development.
   a. The tailor bird.
   b. Primitive (lake-dwellers, Indians, etc.).
   c. Modern. Forms of needle and thread. What led to the invention of the sewing machine?
2. Equipment.
   a. For hand sewing: scissors, thimble, needle, tape measure, emery bag.
   b. For machine sewing: foot machine or belt machine; experience; keeping parts in repair; oiling and cleaning.
3. Stitching.

Kinds. Running stitches are small, even stitches taken always straight ahead, the thread showing as much on the upper side of the goods as on the under. This is used in running straight seams.

Basting stitches are made in the same way as running stitches, except that the stitches are twice as long. In basting a seam that is to be fitted, use No. 2; for long seams where no strain is to come, No. 3 stitch is best; with wiry goods use No. 4 stitch, as the alternate long and short stitches hold best. Tacking is a modified form of basting that is used to hold together goods and lining. In this the needle is pointed toward the worker, as shown in No. 4.

The Back Stitch is used to make sewing very secure. Take a small stitch as in running, bring the needle out of the cloth, pull the thread close, put the needle down in the same place as before, bringing it up twice the length of the stitch. This gives even length stitches, with no spaces between. The halfback is made by going back only half of the length of the stitch. A combination is sometimes used by making three running stitches, going back one, etc. In running seams by hand this combination is preferred.

Overcasting is used as an edge finish and is made by putting the needle through from the under side, bringing it out on top, casting the thread each time over the edge, and making each stitch a little to the right. Reversing the process, bringing the needle up in the same place, but at the left instead of the right, gives the double overcast, as is shown in illustration No. 8.

A loop stitch is used as an edge finish by placing stitches at regular intervals, making the length of the stitch equal to the distance between. Buttonholes are worked by using this stitch, worked close together and from right to left.

Outline stitch is made by taking a long stitch on the upper surface, with short stitch on the under side, bringing the needle up at half the length of the long stitch,

repeating the long stitch, etc. This is very useful in making simple outlines for hand decorations, instead of expensive trimming.

Chain stitch is very useful in darning and outlining. It is made with the needle pointing toward the worker. Before the needle is drawn through the cloth, the thread is held down by the thumb of the left hand. By pulling the needle through a loop is formed. The next stitch is taken by putting the needle down where it was brought up in the last stitch.

Cat stitch is used in laying open seams of soft, thick goods that do not ravel, as flannel. No. 12 shows the process. Hold needle toward you, taking short stitches of even length, first on one side, then on the other. To assist in regularity, it may be well at first to put in bastings as guide lines.

Hemstitch is used in hemming, tucking, and finishing the edge of open drawn-work. After threads are drawn, turn down and baste the hem, bringing the folded edge to the lower edge of the open work. Take a small stitch in the hem at the middle of the group of threads to be drawn up. Hold the fastened end of the thread to the left with the left thumb, put the needle under the group of threads, bring it through over the thread, hold by left thumb and draw tight.

Materials. For the beginner, use small check ginghams, in order to make it easy to regulate length of stitch. Use soft material and teach use of thimble to begin with. Insist upon this.

Simple things should be made as soon as possible, such as bags for sewing, simple sewing aprons, needle cases, caps, towels hemmed and others hemstitched, etc., taking care always that there is not enough work on any piece to make the pupil tired of it. Require measuring in cutting and sewing.

Mending. If the article to be mended is of stockinet or other knit fabric, the worn place should be darned. Thread a needle with fine thread and overcast the edge of the hole, drawing up so as to make the hole as small as possible without puckering. With fine yarn or darning cotton put in running stitches back and across the fabric, allowing the threads to run well out beyond the weakened portion. When the cross threads are in, chain stitch across them parallel with the stitches of the weaving. This gives a better appearance than the under and over darning, and is much more elastic.

If cloth is woven, it may be darned by using ravelings of the same goods, or with thread as nearly matched as possible in color and texture. Press on the under side with a warm iron, making the edges meet, or if no cloth has been torn out; if goods is light weight or net, then baste on the under side and darn the rent on the under side with a running stitch. Or if a hole is found, instead of chain stitch, use the under and over stitch, imitating the weave of the cloth. By using right colors and taking care, the darned place may be made unnoticeable.

If wash goods is to be mended, sew securely on the under side a piece of the same material—carefully matching the design or figure. Use the running stitch. On the right side, cut each corner diagonally and turn under the edge. Bring the needle up through the folded edge to hide the knot. Take up on the needle a couple of threads of the folded edge, draw the thread close, and in this way fasten down all the folded edges.

XI. Selection of Material.

1. For a dress or suit.
    - a. Consider durability, purpose, and cost.
    - b. Estimate width and amount required.
    - c. Allow for shrinking.
    - d. Be sure to match the design carefully: (a) if adding to a garment now owned; (b) if to be worn with certain other garments.
    - e. Examine the weave, color, and design.

2. Trimming requisites.
    a. Fast color, good finish, strong edge.
    b. See that the color harmonizes with the article to be trimmed.
    c. Have the weave and quality match.
    d. Compare the effectiveness of hand and machine-made trimming. Select that which is suitable.
3. Selection of design.
    a. Consider the intended use of material.
    b. Study the artistic effect.
    c. Determine if the design is in good style.
    d. Give some thought to color combinations.
    e. See how you can use different colors and qualities advantageously.
4. Cutting out.
    a. Study economy.
    b. Study modern pattern-making and how to use.
    c. Learn how to lay your pattern according to the weave.
5. Making.
    a. Examine garments and ascertain the points to be observed for good work.
    b. Note the importance of pinning, basting, pressing, etc.
    c. Study all kinds of seams, hems, bands, binding, facing, etc.
    d. Learn about stitches and their applications.
6. For millinery.
    a. Study materials used; also hats, bonnets, and other headgear in the finished state.
    b. Artistic effects, harmony of color, and arrangement of material.
    c. Watch a milliner design or make a hat, etc. Make one yourself.
7. Underclothing.
    a. It is usually economy to buy this already made.
    b. Should be adapted to health, the season, and the purse.
8. For gifts.
    a. Select gift and design suitable to recipient.
    b. Designing and making different objects yourself sometimes adds to their desirability.
    c. Copy gifts seen in stores. Compare the cost.

(See articles on COLOR, ART, LACE, EMBROIDERY, and MILLINERY.)

XII. CARE OF CLOTHING.

1. New clothing.
    a. Necessity for sanitary factories.
    b. Air and sun for factory-made clothing.
    c. Importance of dusting, pressing, suitable hangers, etc.
2. Worn clothing.
    a. Value of airing garments before putting away.
    b. Brush, press, fold, or hang, to preserve goods and shape.
    c. Rents and holes should be mended at once.
    d. How can you best prevent the ravages of clothes moths?
3. Laundering.
    a. Necessity for frequent laundering of certain goods.
    b. What preparation for the laundryman? For the home laundry?
    c. Have you a regular place for soiled clothing?
    d. Why darn and mend or remove stains before putting into a receptacle?
    e. Study the effects of heat, acids, soaps, washing powders, etc., on fabrics and colors.

4. Cleaning.
    a. Study dry cleaning and other methods.
    b. When should certain fabrics be cleaned?
    c. Should you always attempt to clean garments yourself?
5. Pressing.
    a. Why necessary?
    b. Heat required for different fabrics.
    c. Where can it be done most advantageously?
6. Storing winter clothes.
    a. How avoid danger from moths, dust, etc.?
    b. Importance of having a place for everything.

(See articles on MOTH, CEDAR, LAUNDRY, SOAP, ACID, SEWING, FUR, and WOOL.)

XIII. COST OF CLOTHING.

1. See headings, "Design," "Relation to Health," "Selection of Material," &c.
2. Compare cost of entire personal outfit.
    a. If ready made.
    b. If tailor made.
    c. If home made.
3. Lower cost by:
    a. Buying in quantities.
    b. Avoiding extremes in styles and fabrics.
    c. Selecting a time for buying.
    d. Selecting styles easily cared for.
    e. Planning simple handwork for trimming.
    f. Readjusting clothing already worn.
4. Compare the cost of clothing and of food.
5. Compare the cost of new designs with that of old and standard ones.
6. Keep a record of the actual cost of clothing.

XIV. LACES.

1. Kinds, according to manufacture, place made, use.
    a. Why hand made is more desirable.
        (1) Bobbin or pillow lace, its description and uses.
        (2) Point lace, how made, where made, and how used.
    b. Machine made: advantages, disadvantages.
2. Gain by a combination of the two kinds?
3. Read the history of lace making—both hand made and machine made.
4. Study the wages of the lace maker and home conditions.

(See articles on LACE, IRELAND, BELGIUM, and WAGES.)

XV. EMBROIDERY.

1. How distinguished from lace?
2. Make a study of its history and changes; also of its uses.
3. Materials used in making:
    a. By the ancients.
    b. Modern people.
4. Hand embroidery; by whom made; how made; how used.
5. Machine made: how distinguished from hand made; its history and use.
6. Study historic and other pictures in embroidery. Where seen? What is their purpose?

(See articles on EMBROIDERY, TAPESTRY, SEWING, etc.).

Note: Many of the articles referred to bear upon several topics. Much help will also be obtained by referring to the General Index and Special Indexes found in the last volume of the series.

SILK

1. Mulberry Twig with Silk-worms and Eggs.
2, 3, 4. Cocoon and Pupa.
5, 6. Male and Female Moths.
7. Cocoons on branch.
8. Reeling Fibre from Cocoons.
9. Unspun Silk.
10. Magnified Fibre.
11, 12, 13. Finished Products.

SILK

Silk Worm

Moth
- Description
- Male and female

Eggs
- Number, size
- Where deposited
- Time to hatch

Caterpillar
- Early appearance
- Development
- Food

Cocoon
- Attached where
- Glands, Spinnerets
- Length of thread

Chrysalis
- Hatching
- Time required
- Prevention

Manufacture

Steps
- Plunge in hot water
- Unwinding cocoon
- Reeling
- Washing
- Dyeing
- Twisting
- Spinning
- Weaving

Use of Waste

History and Development of Industry

Its origin
- Introduction into Europe
- Attempts in America
- Where now produced
- Centers of manufacture

Artificial Silk

- Made from what
- Process
- Extent of Industry
- Value of product

Questions on Silk

Why does silk cost more than cotton?

Where does most of our raw silk come from?

What is "spun" silk?

What is the main food of silkworms?

How long a thread can be obtained from a single cocoon?

Why must they kill the chrysalis in cocoons intended as a source of silk?

How many cocoons yield a pound of raw silk?

How long does it take to spin a cocoon?

Is silk culture an industry of this country?

From what is artificial silk made?

How does it compare in quality and price with real silk?

What is the color of raw silk?

How many days elapse between the hatching of the silk worm and the spinning of the cocoon?

Is the fruit of the mulberry tree edible?

REDUCING THE COST—INCREASING THE HEALTH

INTRODUCTION

The high cost of living is no jest. It is a vital, stern reality which confronts every housewife today. The problem of how to keep out-go from exceeding income has well-nigh driven many housewives to the verge of despair. Others claim that "Jim's wages just go around and that's all." In such homes economy is a necessity; yet true economy is seldom understood.

It is no longer considered "stinginess," but rather a dignified science and art. Thrifty, right-thinking housewives practice economy with as much pride as the manager of one of the largest concerns in the country who said, "Not even a postage stamp is wasted."

The purpose of this department is to show what true economy is, and, by practical helps, show how it may be employed to increase the health, wealth and happiness of the home.

The thrifty French who are recognized the world over for their fine cooking, are equally famous for their keen economy. They have learned lessons which no other nation of the world has learned. It may be that their discoveries date far back into the centuries, but it is certain that they were greatly developed when in 1871 the nation was crushed by the Franco-Prussian War. Though defeated and impoverished almost overwhelmingly, Bismarck sought to reduce them still further by demanding a one thousand million dollar indemnity. Such an after-punishment had never been heard of in all the annals of history. The German armies occupied every important part of France wherewith to enforce peace and payment. Bismarck expected the army to remain for years, but it is a notable fact that within 18 months one-half of the army was removed, and at the end of 31 months the last of the $1,000,000,000.00 had been paid. Scientists and historians alike give the credit for this almost unbelievable accomplishment to the skill and economy of the French housewives.

It is clear that what the French can do, any other nation can do. Instead of standing ninth among the great nations, in savings accounts per capita, America, with her wonderful resources should stand first. This department will effectively point the way for all who will follow it carefully.

Over 1000 meals are served in the home annually. If one can save 5 cents per meal on an average, it is no trivial matter. Ordinarily meals are selected haphazard, without any actual knowledge of nutritive values, which results in food becoming a much greater item of expense than necessary. Nourishing food, properly combined, is much cheaper and does immeasurably more good. Those who have learned how to do it, have reduced the cost of their living to what it would have been 20 years ago when 158 commodities were selling for 35% less money than they are today. Why shouldn't the nation as a whole know how that is done?

Then too, we are known as a nation of dyspeptics. This is because of improperly cooked food, harmful food combinations, and over-eating. Experts claim that our increased death rate is largely due to malnutrition and over-eating. Most people who over-eat, do so because of imperfectly balanced meals. The nutritive elements are either lacking or positively neutralize each other. In either case the appetite demands large bulk to make up for the lack of nourishment. This not only greatly increases the expense of the meal, but promotes indigestion and thus demoralizes physical energy and decreases earning capacity. Thus we have a three-fold *loss*. No family can afford, at any cost, to allow ignorance of such laws to continue.

The following outline is a brief summary of practical material to be found in this department. We do not claim it to be exhaustive; that would require several volumes. We do claim however, that it is sufficiently suggestive in tables, types of perfectly balanced meals, recipes, etc., etc., to be of vital importance and exceedingly helpful even to those of wide experience in this department of Domestic Economy.

WHAT EVERY HOUSEWIFE NEEDS TO KNOW IN THESE STRENUOUS DAYS

Food

1. How to select foods:
   - a. Meats { Beef, Veal; Pork, Ham, Bacon; Mutton, Lamb; Rabbits, Squirrels; Turkey, Chicken; Fish, Oysters }
   - b. Vegetables
   - c. Eggs
2. Food Combining:
   - (a) What the body needs
   - (b) Feed elements
   - (c) Properly balanced meals
3. Methods of Cooking:
   - (a) Roasting (oven and pot)
   - (b) Broiling
   - (c) Boiling, simmering and steaming
   - (d) Stewing, braising
   - (e) Frying, "sauteing"
4. Reducing the Meat Bill:
   - (a) How to tell good meat
   - (b) Cuts of meat
   - (c) Use of economical cuts { What they are; How to cook tough cuts to the best advantage; Recipes }
   - (d) Making a little meat go a long way
   - (e) Meat substitutes
5. Use of "Trimmings", fat and drippings
6. Use of Left-overs:
   - (a) Stale bread
   - (b) Sour milk
   - (c) Meats
   - (d) Miscellaneous { Vegetables; Cereal; Orange peel; Hard-boiled eggs }
   - (e) Soups and gravies
7. Valuable helps in economy:
   - (a) Rice
   - (b) Bread

HOW TO SELECT FOODS

Meats

Beef and Veal

Beef. Good beef is a clear, bright red, of a close, even grain and well mixed with creamy fat; the suet is firm and pure white. Heifer meat is small in the bone and lighter in color than ox beef, which is the sweetest, juiciest and most economical.

Veal. When veal, the young of beef, is at its best, it is almost white in color, the fat being of a pinkish hue, the bones hard and of a good size. The meat should be close and firm, although the veal from a calf raised in a pasture will be coarser in grain and redder in color. The milk-fed is better. Reject any piece when the suet has the faintest odor, or is soft and flabby, or has greenish or yellowish spots about it. It is not fit to eat. Meat that takes on a pinkish color has passed the age of veal and is simply beef too young for the market. It is neither wholesome nor of good flavor. The kidneys should be large and well covered with fat; the sweetbreads plump, firm, and of an inviting color; the liver a clear red without spots or gristle.

Pork, Ham and Bacon

Pork, of a good quality, is a delicate pink and fine grained. The fat should be pinky white but not present in large quantities. Too much care cannot be taken in selecting pork for unless it *is absolutely first class* and *well cooked,* it is unwholesome and harmful. Pork must not be kept on hand long before cooking. It is quick to taint. *Tainted meat of any sort is dangerous.* If small kernels exist in the fat, the pork is unfit to eat. It is diseased, being known as "measly," a condition not uncommon in hogs and due to a parasitic worm, trichina.

Ham. The best hams are the small, short, tapering ones, weighing from eight to sixteen pounds. Select one with a thin skin, the fat firm. To tell if the ham is good, run a clean knife in at the knuckle and at the center. If sweet and good, the knife will come out clean and have no repulsive odor. There is economy in buying a whole ham. When cooked, it keeps well and one does not tire of it as readily as of other meats.

Bacon, for table use, whether salted and dried, or smoked, should be good and lean. It is no economy to pay *thirty to forty cents per pound for bacon fat.* The fat should be white and firm, the lean fine-grained and light in color, the rind thin. If the lean be dark and coarse, it probably is old and over salted besides. No yellow or black marks should be in the fat, if the meat is to be sweet and savory.

Mutton and Lamb

Mutton. Sheep between four and six years old yield the best mutton, which, in perfection, is a clear dark red with a medium amount of firm white fat. The breast bones are white. If the mutton, when pressed by the finger, rises quickly, it is good. Any greenish tints about either fat or lean shows that the meat has been kept so long that it has begun to decay.

Lamb. Spring lamb is between six weeks and six months old. The bones should be small, the meat pink and fine grained, the fat white. The younger a sheep the less white are the bones, those less than a year old being entirely red.

Rabbits and Squirrels

Rabbits and Squirrels, when fresh, are stiff and red. If flexible and the flesh black or even dark, they are stale. If old, the ears are tough and dry, the cleft in the upper lip is broad and the claws rough and blunt.

Turkey and Chicken

Turkey. A young, plump, firm, white fleshed, hen turkey is the one to choose, if one wants a sweet, juicy, tender bird. It is preferable to all others and should be hung for at least a week before cooking. Many plump turkeys are old over-fattened ones. Too much fat will mar the flavor of the meat as well as cause indigestion. The fat forms under the skin and an abundance of it makes the turkey soft and spongy to the touch. Here are four specific tests by which to tell whether a turkey is young:

First, the *breast bone* will be *flexible,* if the bird *is young.*

Second, an abundance of *pin feathers* bespeaks youth.

Third, *long coarse hairs on the neck* are certain signs of *old age;* the bird is fit for nothing but the stew pan or soup pot.

Fourth, *the skin* of the young turkey is fine in texture and will break easily under the wing. The legs will be smooth and dark.

Chicken. Much that holds good in choosing a turkey may be used as a guide in selecting a chicken. Chickens are best when they have just reached full growth, unless spring chicken is desired. The comb should be full, bright colored and smooth. The toes should break easily, when turned back. Chickens should be cooked soon after killing as they spoil easily. The best ones have yellow legs.

Fish and Oysters

Fish. Doctor C. F. Langworthy, United States Food Expert, says: "From the standpoint of both nutritive value and palatibility fish is an important food product and equal to beef as a source of energy." Friday is the world's "Fish Day", and, in the homes where Lent is observed, fish furnishes the most frequent substitute for meat. Fish is particularly desirable during the spring months but should appear on our tables during the whole year much oftener than it does. Good fish is not difficult to obtain, if one has a little knowledge of what fish are "in season." As this depends upon where one lives details cannot be given here. Halibut and cod are seasonable all through the year. There are certain tests, which *ordinarily* hold good, namely, gills must be a bright red, the eyes bright and prominent, the flesh firm. However, fish *may appear* good and be just the opposite. The *best guide* is an *experienced, trusty dealer.*

Oysters, are the best known and the most popular of the shell fish and are an important article of food from September till May. In most localities they are no more costly than meats and a few oysters will give a relish to many made-over dishes, or supply a piquant addition to dishes having little flavor of their own. There is an endless variety of ways in which they may be cooked. There has been much ado in the past about the contamination in oyster beds and the difficulty in securing bulk oysters which were not bleached and tasteless. Both problems have been satisfactorily solved. The first one by the state and government authorities, the second by the invention of an oyster-carrier which transports firm, clean, delicious oysters into every section of the land.

Vegetables

Vegetables, which are "in season" should be chosen. They are cheaper, taste better and are better for the body. Summer vegetables cannot be kept as long before cooking as the winter ones. Good fresh vegetables are young and tender; beans, if fresh, are firm and will snap easily between the fingers. Old, stringy vegetables are not worth carrying home. Crispness may be restored, to withered or faded ones that are not too old, by soaking in cold water. Onions become strong, if allowed to sprout. Keep them in a cool, dry place. Peel potatoes very thin as the most nutritious part lies next to the skin.

Eggs

Eggs, one of our most important foods, are highly nutritious, being composed of water, albumen, fat and mineral salts; they only lack starch to make them a perfect food. Mixed with other foods they make valuable meat substitutes. Here are two reliable methods for testing eggs: (1) Fresh, newly laid eggs have rough shells; those that are doubtful, smooth, shiny shells. (2) Fill a glass two thirds full of water, put one egg in at a time. If the egg lies flat on the bottom of the glass, it is good. The staler the egg, the closer it will come to the top of the water. An egg that will float is a little *more* than doubtful. Throw it away.

FOOD COMBINING

What the body needs. To combine foods intelligently it is absolutely essential to know what the body needs. We eat to satisfy hunger and thirst, to maintain life and to promote growth. Nature supplies these instincts in both the animal and plant world. Old Mother Earth allows each plant to take from her store-house just the food the plant needs to perform its mission in life. The food required to best develop a clover blossom is not that upon which her sturdy little friend, Mr. Grain of Corn, dines. Plants require the same general substances but in different proportion. For instance, it is well known that cotton and tobacco are so hoggish that they "eat up every thing in sight" and other plants in this same soil would die of starvation unless the necessary food is replaced. Likewise, our bodies require the same *elements* of food but in different amounts. The man who earns his living by brawn must have food that will *make* brawn; he who makes his living by brain, must have food to make *brain!* At the same time every organ of the body must be provided with the food which will repair and build the individual parts which are constantly being worn out. Unless they are kept in good repair, the parts neglected will cease to work and Disease and Death creep in.

Food Elements. In order to know what foods will make brain or brawn, the housewife must know the make-up of foods in general. This is important. A highly technical knowledge is not necessary. The following simple chart gives ample information. Consult this chart when planning meals. (The lesson on Food in the body of this work is both interesting and helpful.)

FOOD CHART

Elements of Food	What They Do	Chief Foods in Which These Elements Predominate.
Proteids.....	Repair, promote growth, build muscle, give strength, make bone and blood.	Milk, lean meat, eggs, cheese, beans, nuts, fish, gluten of wheat and other cereals.
Fats.....	Supply heat, form the fatty tissues of the body.	Butter, cream, olive oil, fat meat.
Carbohydrates (Starches and Sugars)...	Give heat and energy.	Sugars, rice, hominy, fruits, flour, bread, potatoes, corn, peas, turnips, beets.
Mineral Matter..	Purifies the blood, aids digestion, cleanses the system, forms bone.	Salt, apples, tomatoes, rhubarb, grapes, oranges, grapefruit, celery, spinach, parsley, onions, greens, lettuce, olives, pimentos, radishes, cress.

Properly Balanced Meals. Appetite and taste are controlling factors in the choice of foods, but perfectly balanced meals must do three things, viz.:

1. Must not contain too much of *one* food element;
2. Must provide due nourishment for *all parts* of the body;

3. Must appeal to the eye—*enjoyable* as well as nutritious.

When food combinations meet these requirements, the meal is properly balanced. It will not only be enjoyable and healthful but economical for it is cheaper to feed the body right than to pay doctor bills; besides, the comfort and earning capacity of a properly fed individual is vastly greater than that of one improperly fed.

An excellent table, which will prove a time saver, is given here. Select one dish from each group, choosing your main dish first. The list is not exhaustive but experience will soon enable you to enlarge the list by suggesting combinations both original and correct.

PERFECTLY BALANCED MENUS

Soup	Main Dish	Starchy Food	Watery Vegetable	Salad	Dessert
Cream of asparagus Onion Carrot Cucumber	Sirloin steak Hamburger " Porterhouse steak Round steak	Sweet potatoes Corn Parsnips Eggplant	Beets Tomatoes Cauliflower Squash	Water cress Cold slaw Lettuce Orange	Cocoanut custard Prunes stewed apricots Tapioca pudding
Amber Bouillon Consomme Julienne	Roast tenderloin Pork chops Ham Spare ribs	Irish potatoes Hominy Rice String beans	Onions Cabbage Greens Spinach	Waldorf Lettuce Tomato Beet	Ice cream Fresh fruit Pineapple ice Gelatine
Vegetable Tomato Pepper pot Cream of cauliflower	Leg of mutton Lamb chops Lamb stew Boiled mutton	Irish potatoes Parsnips Rice Hominy	Brussels sprouts Onions Asparagus Mushrooms	Combination Celery and apple Mint Cucumber	Apple dumplings Plum pudding Bread pudding Baked bananas
Ox-tail Cream of lettuce Cream of cucumber Cream of asparagus	Roast veal Veal cutlets Veal chops Veal loaf	Stewed corn Baked sweet potatoes Green beans Egg plant	Fried artichokes Baked tomatoes Stuffed peppers Turnips	Onion Cauliflower Mexican Cabbage	Cottage pudding Strawberry shortcake Vanila ice cream Fruit jelly
Barley Green pea Clam bouillon Vermicelli	Roast chicken Fried chicken Chicken fricassee Chicken pie	Creamed potatoes Mashed potatoes Lima beans Cauliflower	Spinach Asparagus Buttered beets Mushrooms	Cucumber Tomato-mayonnaise Celery and apple Perfection	Crackers and cheese Sliced peaches Stuffed dates Ice cream and cake
Cream of celery Cream of onion Cream of cabbage Cream of pea	Fried fish Baked shad Broiled salmon Baked halibut	Baked potatoes Macaroni and cheese Browned sweet potatoes Green corn	Creamed spinach Creamed turnips Stuffed tomatoes Greens	Olives Currant jelly Lettuce Peppers	Cocoanut pudding Apple pie Lemon tartlets Apricot cream
Clam broth Oyster Iced bouillon Clear soup	Turkey roasted Duck roasted Goose roasted Squab stewed	Riced potatoes New potatoes Candied sweet potatoes Peas	Baked onions Baked squash Young carrots Tomatoes	Cress Orange Pears Grapefruit	Bavarian cream Rhubarb pie Cherries Tutti frutti ice cream
Cream of celery Scotch broth Potato Turnip	Baked beans Nut loaf Rice and cheese Vegetable pie	Fried egg plant Sweet potatoes Baked " Fr. fried "	Asparagus on toast Ladies cabbage Stewed tomatoes Fried cucumbers	Lettuce Cranberries Endive Cress	Gingerbread Baked quinces Cornstarch Fruit souffle

METHODS OF COOKING

Roasting, one of the oldest methods of cooking known, means to cook before an open fire. A steady glowing heat is needed. The bird or meat to be roasted must be seared quickly on all sides and then drawn further away from the fire. The object is to cook the meat in its own juices and have it well cooked but not burned. If cooked quickly clear through, the meat is in danger of being tough. Baste the meat about every ten minutes. This will help cook it and keep it juicy. Roasting is also done by placing in hot ashes or hot coals.

In an oven. What is commonly called roasting today is, in reality, *baking* in a closed oven. But, since baking is so universally considered roasting and modern kitchens are unfitted for roasting meat according to the original meaning of the word, it does not seem out of the way to call baking, when applied to meats—"roasting" and when applied to bread, pies, puddings, cakes and vegetables—to call it "baking". For an oven roast use a self-basting pan, if possible. Place the piece of meat in the bottom of your roasting pan, add half a teaspoonful of salt and half a cup of boiling water. Put it into a very hot oven. When the meat is well seared on the outside, put the lid on your pan and lower the heat. Allow twenty minutes per pound for meat to be well done. The baking of cakes, breads, etc., requires careful regulation of the fire. It is well to understand that:

(a) A slow oven means 270 to 350 degrees (Fahrenheit).
(b) A moderate oven means 350 to 400 degrees.
(c) A quick oven means 400 to 480 degrees.

Pot roasting. This method is for small roasts or tough cuts, and is done on top of the stove. An iron pot or aluminum utensil is best for the purpose. The meat may be cooked in one piece or cut into several pieces. Each piece is seared on all sides in hot fat seasoned with onion or other preferred seasoning. Boiling water, enough to barely cover the meat, is added and the meat allowed to boil briskly for twenty minutes. The heat is lowered to the simmering point and kept there till done. Keep the pot covered tight. Salt and pepper are best added when meat is about half done, although authorities differ upon this point. The American Eagle could scarcely resist being tender and juicy if treated in this way.

Broiling, frequently called grilling, is the next nearest kin to roasting. Many claim that it *is* roasting, which, in its original meaning, is true. One side of the meat is exposed to intense heat and the other to the fresh air. A wire broiler, a gridiron with bars in it, or a double broiler can be used. The latter is preferable as the turning can be managed more easily. Steaks, chops, fish and young chickens are both delicious and wholesome when broiled. Larger pieces are unwieldy.

Grease and heat the utensil so that the meat may not stick and be torn. Do not broil meat that is less than an inch thick nor over two inches. Sear on one side and turn before juices ooze out at the other surface. Turn every ten seconds, using steak tongs or a knife and spoon. Piercing with a fork lets the juices escape. From ten to twenty minutes are required to cook a steak. Season with salt, pepper and small pieces of butter. Serve as soon as cooked, piping hot, on a hot platter. The whole meal should be prepared before the meat, in order that the meat may have undivided attention. A piece of meat that would require an hour to roast can be broiled in twenty minutes.

Boiling, and frying are the two methods of cooking most commonly used. Beware of getting into a rut. Variety is still "the spice of life." Boiling, simply means to put the food right into boiling hot liquid which, after a few minutes, is reduced to simmering. The pan for boiling should be just large enough to hold the food and the water sufficient only to cover it.

Simmering is not always understood. It is simply cooking gently *at the boiling point* or even below.

Steaming is a process deserving of wider use. It is the *best* and most *economical* way of cooking vegetables. In boiling, much of the juices escape into the water, which makes that method very wasteful if the liquid is thrown away. Whereas, in steaming, nothing is wasted.

Put the food to be steamed in a colander, wire holder, or regular steamer. Place it within a kettle of boiling water high enough to prevent the food from being touched by the water. Meats may be steamed admirably in a common boiler—tough meats, legs of mutton or ham especially. Use enough water to create a huge volume of steam. Cover well. As the water boils away, replace with more boiling water. Do not check the boiling. The steam will do the work to a nicety. Steamed meats are juicy and tender, watery vegetables made dryer, and starchy vegetables and puddings have an entirely different flavor when steamed.

Stewing, another economical method, differs slightly from boiling. It is done rapidly at first (in a *small* quantity of water) and then slowly for a long time—the exact time depends greatly upon what is being stewed. Meats need at least two hours.

Braising is neither baking nor boiling—but a bit of both. Food stewed and then baked in a quantity of liquid, is *braised*. The French are very partial to this method.

Frying is undoubtedly the most highly condemned form of cooking. It means, strictly speaking, to *submerge* in hot fat but whether little or much fat is used, it is known in America from coast to coast as "frying." When less than enough fat to cover the food is used, the French call it "sauteing." Frying rests under severe condemnation because, ordinarily, such quantities of unwholesome grease are absorbed by the food that, when cooked, it is not fit for the stomach of man or beast.

The fat most commonly used for frying is *lard*—the taste of which is repulsive, to say the least. Even when properly made it is unhealthful, in fact, positively deadly to many persons. All lard is open to doubt. It is a well-known fact that hundreds of hogs which die from cholera and other diseases are made to yield their portion of the lard which is shamelessly sold for home use.

Butter and olive oil are good but too expensive to be commendable for frying. Drippings cannot be used for all foods. In recent years there has arisen a class of economical lard substitutes which goes far toward redeeming the simple easy method of frying. Though masquerading under various trade names, they are all worthy of consideration, and each housekeeper is advised to experiment till the one is found which most nearly meets her needs.

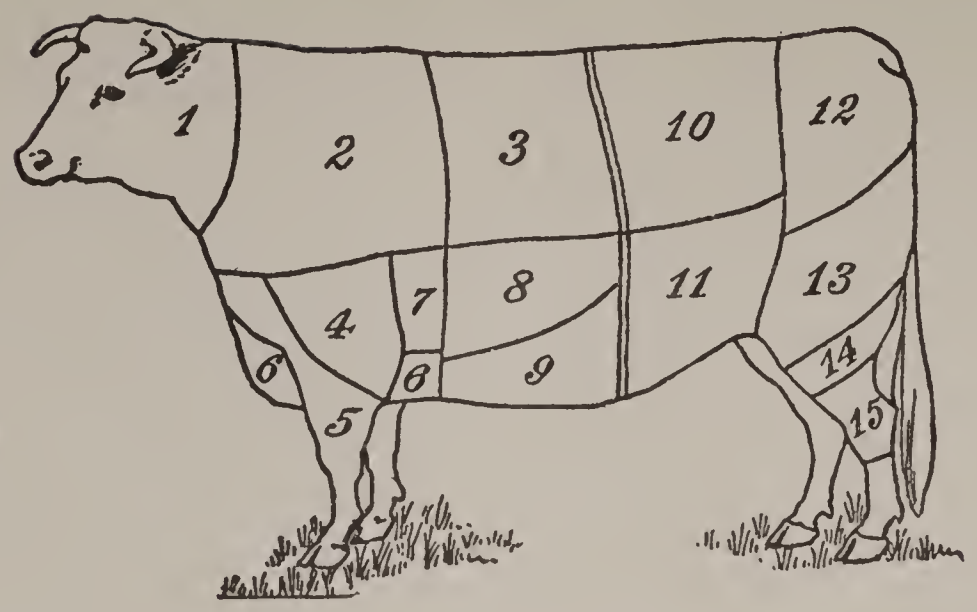
REDUCING THE MEAT BILL

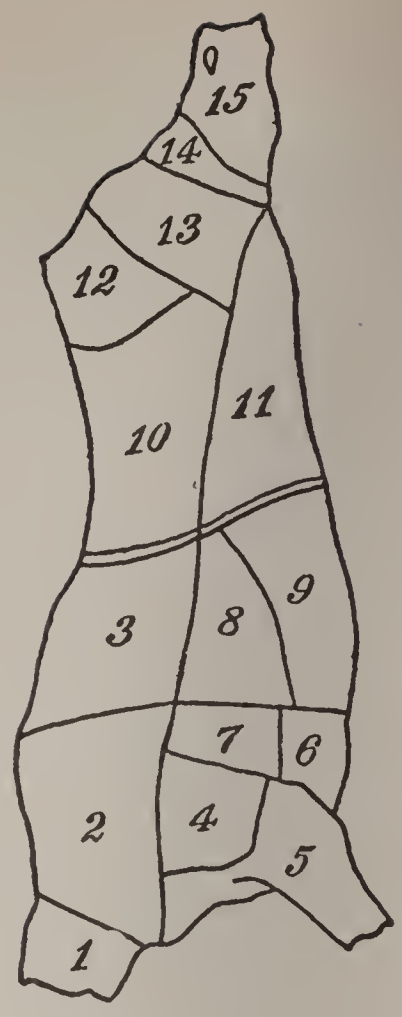
The average meat bill, in the home of the workingman particularly, holds first place among the items of food expense. How to reduce the meat bill is a problem some housewives never solve save by doing without meat entirely. Total elimination of meat is unnecessary and not to be advocated in order to reduce the meat bill. It *is* necessary, though, for the housewife to have more than a "bowing acquaintance" with the different kinds of meat, and to know how to cook them properly and take care of the "trimmings" and left-overs. Deplorably *few* understand these essentials. In fact, there are many today, mothers of large families, unable to tell one cut of steak from another.

How To Tell Good Meat

The careful purchaser will consider first its color and then the grain. Tenderness and nutritive value depend upon the age and condition of the animal. Often an inferior joint from a first-class creature being preferable to a more select cut from an inferior animal. Thus the folly of ordering meat by telephone, relying upon the butcher to send meat that is "fresh" and "tender," is apparent. The efficient housewife will select her meat in person, if she wishes to get what she wants and really pays for.

1. Diagram of Cuts of Beef





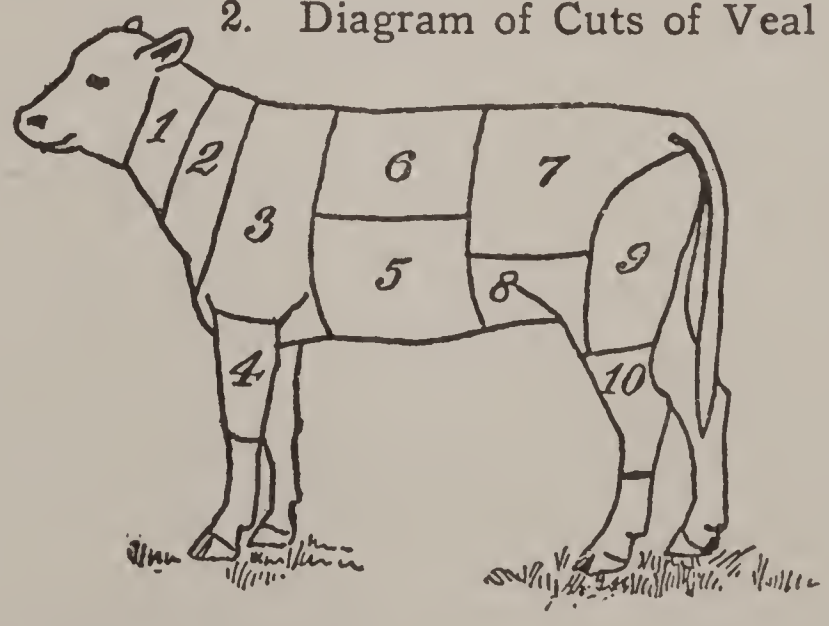
FOREQUARTER

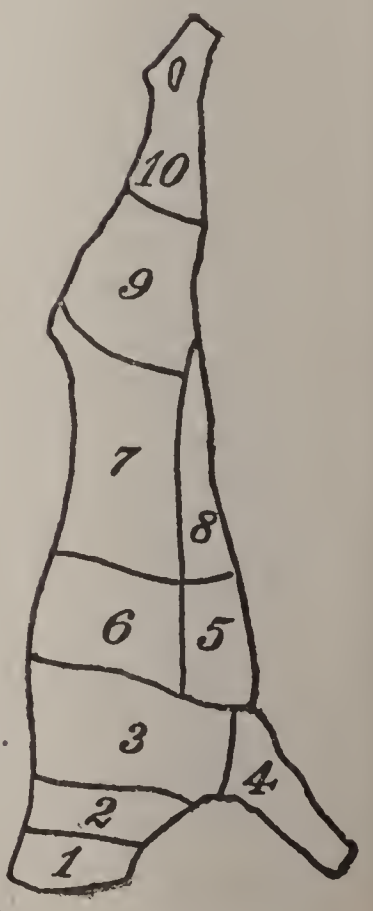
1. Neck, often with more of chuck than shown.
2. Chuck, from which shoulder steak is cut.
3. Ribs—for roasting.
4. Shoulder clod—often cut without bone.
5. Fore shank.
6. Brisket
7. Cross ribs } Often called, as a whole, plate.
8. Plate } Suitable for corning.
9. Navel

HINDQUARTER

10. Loin, with "short" steak and tenderloin, or porterhouse, in front and sirloin near hip.
11. Flank, the upper part yielding flank steak.
12. Rump, the front part being sold as rump steak.
13. Round, with inner or "top" round being more tender.
14. Second cut round. 15. Hind shank.

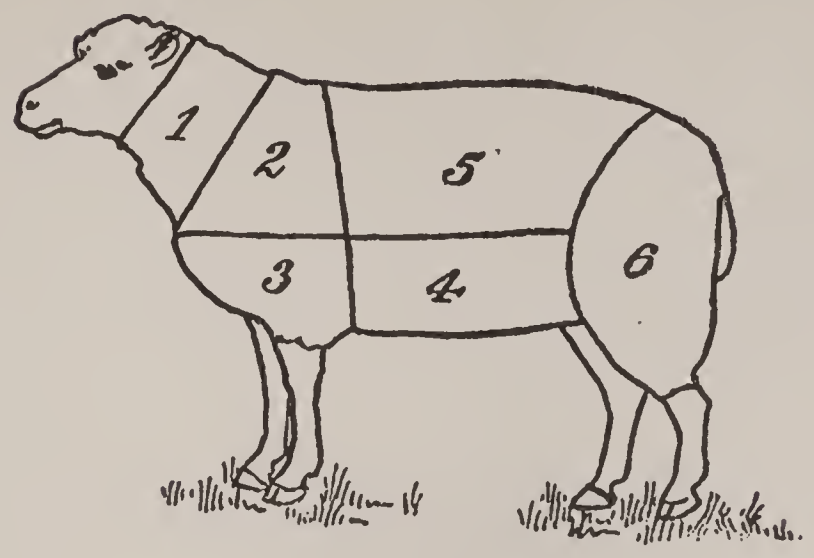
2. Diagram of Cuts of Veal

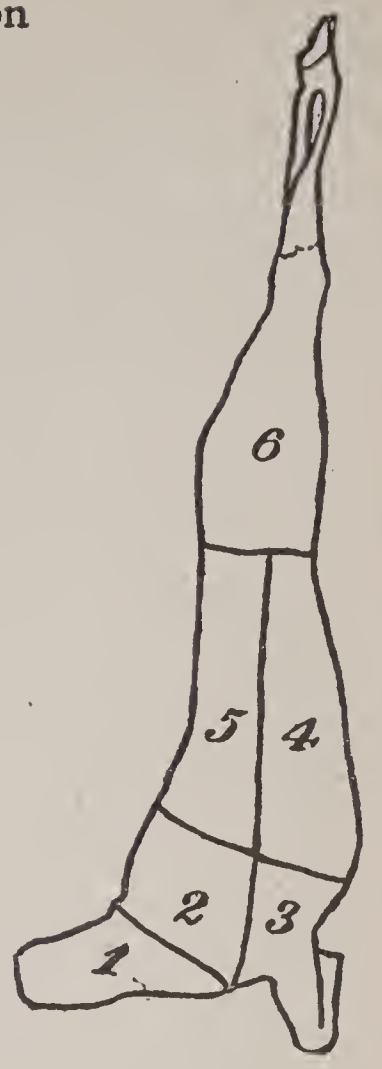




1. Neck, often included with chuck. 3. Shoulder.
2. Chuck, sometimes with more of shoulder. 4. Fore Shank.
5. Breast, corresponding to plate in beef.
6. Ribs. 7. Loin, yielding best veal steak.
8. Flank—stewing. 9. Leg—steak, or roasting.
10. Hind shank, which with fore shank, is often called, knuckle.

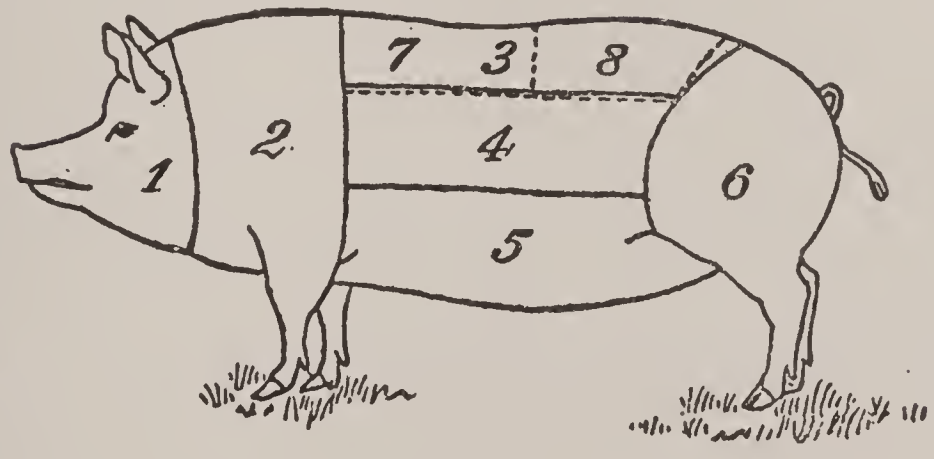
3. Diagram of Cuts of Lamb and Mutton

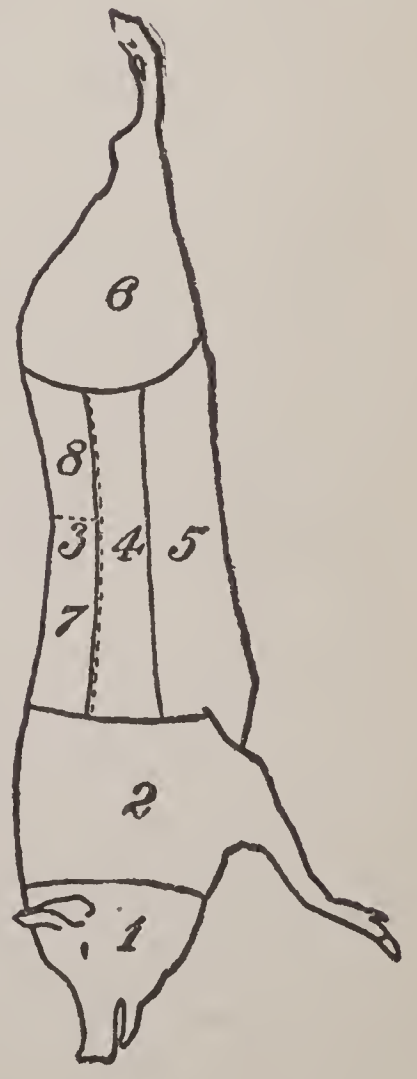




1. Neck, suitable for stewing.
2. Chuck, often with fore part of (5) cut into "chops."
3. Shoulder, a boiling piece.
4. Flank—stewing piece.
5. Loin.
6. Leg, a fine roast.

4. Diagram of Cuts of Pork





1. Head.
2. Shoulder, usually cured.
3. Back, consisting of Ribs and Loin.
4. Middle cut, bacon.
5. Belly, salted, pickled or made into sausage.
6. Ham, cured.
7. Ribs, roasting. } Outer part used for salting
8. Loin, roasting. } and pickling.

Cuts of Meat

Use of economical cuts. *If meats cost a dollar a pound,* it is safe to say that even the poorest families would serve meat. Hence, as the price continues to rise, increased numbers are taking a keen interest in learning how to keep palatable and nourishing meats upon their tables at the lowest possible cost. While the inexpensive cuts are equally as nourishing as the expensive ones, the cheapest are not always the most economical. The reason for this is seen clearly in the following table prepared by the food experts of the U. S. Dep't of Agriculture.

Kind of Meat	Percentage of Bone or Waste in Cut	Percentage of Edible Material in Cut
Beef		
Brisket	23.3	76.7
Rump	19.0	81.0
Flank	5.5	94.5
Chuck Rib	53.8	46.2
Porterhouse	12.7	87.3
Neck	31.2	68.8
Ribs	20.1	79.9
Round	8.5	91.5
Shin	38.3	61.7
Heart	5.9	94.1
Tongue	26.5	73.5
Veal		
Cutlets	3.4	96.6
Breast	24.5	75.5
Mutton		
Leg	17.7	82.3
Chops	14.8	85.2
Forequarter cut for stewing	21.2	78.8
Pork		
Loin	19.3	80.7
Salt Pork	8.1	91.9
Bacon	8.7	91.3
Ham	12.2	87.8

What they are. The amount of fat, gristle, bone, or general waste in a cut is apt to make the piece of meat at the lower price cost the most in the long run. The most economical cut is the one giving the most lean meat for the lowest cost—the greatest value for the money expended.

How to cook tough cuts. The high priced cuts come from the parts of the animal where there is little motion. The meat is tender, the fibers being short. The opposite is true of the cheaper cuts, which makes it necessary for them to be subjected to long, slow cooking. A skillful cook can do wonders with the poorest cut.

Recipes for Cooking the Cheaper Meats

1. Chuck Pot Roast with Tomatoes

3 lbs. beef—cut from neck—"chuck"
2 small onions
3 tablespoons melted fat
2 cups tomatoes
8 cups hot water
Salt, pepper and flour.

Season meat with salt and pepper and roll lightly in flour. Let stand till flour is absorbed. Chop the onions fine and fry until brown in the fat. Remove the onions, put in meat and brown well on all sides. Add water, cover and boil rapidly for a few seconds. Add tomatoes, turn fire low and simmer for two hours. Remove meat, thicken the liquor and strain around meat. Serve at once.

2. Stuffed Flank Steak

1 thick flank steak. (Have butcher cut a pocket in it.)
Stuff with following dressing:
Mix
1 cup breadcrumbs
2 tablespoons drippings
½ tablespoon chopped onion
1 tablespoon chopped celery
½ teaspoon each of salt, pepper and red pepper
½ teaspoon sage or mixed herbs
½ cup boiling water, more or less accordingly if a moister or dryer dressing is desired
1 egg well beaten.

Sew up pocket, dredge steak well with flour, brown in four tablespoons hot fat.

Add one cup boling water and one quart can tomatoes, juice and all, seasoned with salt and pepper, cover and bake slowly till meat is tender. Baste frequently. Do not strain tomatoes. If cooked in cmasserole, it may be served in same. Tomatoes may be omitted.

3. Savory Brisket of Beef

1½ lbs. brisket
1 small onion sliced
2 cups boiling water
2 tablespoons drippings
1 cup flour
1 teaspoon salt
½ teaspoon pepper

Sauce

1 small carrot diced
1 stick of celery, cut fine
1 bay leaf
Cold water to cover
1 cup tomatoes strained

Cut meat into pieces about two inches square. Roll lightly in flour and lay aside till flour is absorbed by the meat juices. Fry the onion in the drippings until a golden brown. Into this drop the pieces of meat, browning each one well on all sides. Pour in the boiling water and let simmer for two hours. When about half done add salt and pepper.

In another sauce-pan boil the carrot, celery and bay leaf in water till vegetables are soft. Put through a fine sieve, and add to the tomatoes. Blend thoroughly. Take meat up on hot platter. Add sauce to the meat broth, heat to boiling-point and pour over meat or serve in separate dish. Chuck steak is equally as delicious treated in the same way.

4. Baked Beef Liver

1 lb. beef liver
1 small onion minced
½ teaspoonful chopped parsley, minced
2 tablespoonfuls bacon fat or drippings
3 tablespoonfuls flour
2 cups water

Pour boiling water over liver and drain. Remove the outer skin. Brown onion in the fat, add parsley. Dip liver in flour and fry a golden brown on both sides. Sprinkle with salt and pepper while frying. Transfer to roasting pan. Pour the water in frying pan and bring to a boil before pouring over liver. Bake in a moderate oven two hours. The liver will be tender and taste as good as calves' liver though *costing about half as much.*

5. Baked Hamburg Steak

2 lbs. round steak (the best comes from the lower part of the round, although any inexpensive lean meat may be used)
1 cup breadcrumbs (putting stale bread through meat chopper is best method)
1 egg
2 small onions or 1 teaspoon sage, if preferred
4 slices bacon, or salt pork
1 teaspoon salt, and ½ teaspoon pepper
2 tablespoons flour

Grind onion and steak (or have butcher grind meat while you stand by to insure it being fresh as ground meat soon gets stale). Add the breadcrumbs, the egg well beaten and salt and pepper. Shape into a loaf, handling lightly and carefully. Grease a small dripping pan and put in the loaf, which has been well floured. Arrange the slices of bacon or pork across the top of loaf and bake in a hot oven for forty-five minutes. Baste every 15 minutes with one-fourth cup of hot water. Remove meat to hot platter. Add enough hot water to liquid remaining in pan to make one cup, make brown gravy, and pour around meat. The same recipe may be made into cakes and pan-fried.

6. Beef Heart Stuffed

Wash thoroughly inside and out, a beef heart and stuff with any desired forcemeat. A good one is made of minced pork, bread crumbs, and mixed herbs. Pack well, sew up in a clean cloth and boil two hours in water or stock. Allow the heart to cook, remove from liquid, weight it down well and leave till cold and well flattened. Cut lengthwise into thin slices and serve on lettuce leaves. Calves hearts are prepared in the same way.

7. Boned Leg of Mutton

Mutton and lamb chops are expensive but the leg can be purchased for a small price and if cooked by the following recipe, is delicious.

1 mutton leg
1 tomato sliced
1 small onion minced
1 stalk of celery
1 tablespoon minced parsley or mint
Bread dressing forcemeat
1 cup breadcrumbs
2 tablespoons butter, crisco or drippings
1 tablespoon onion juice
1 tablespoon parsley minced
¼ teaspoon each of salt, pepper, paprika, ground mace and sage

Have the bone removed carefully. Fill the cavity with the forcemeat. Sew up to keep the dressing from escaping. Prepare vegetables. Arrange them in the bottom of your roaster, laying mutton upon them. Dash over it 2 cups of boiling water, cover closely. Cook 20 minutes to the lb. Baste every half hour, the last time with butter, sprinkling with salt, pepper and flour. Remove the cover and brown. Make a gravy of the vegetables put through a colander and the liquid thickened with flour. Serve green peas or turnips with this dish.

8. Roast Lamb

The forequarter of lamb including the shoulder is cheaper than the hindquarter and much more economical.

1 shoulder of lamb
1 cup boiling water
Salt, pepper, flour
Mint sauce

Put meat into roasting pan. Dash over it the boiling water, cover and bake, allowing fifteen minutes to the lb. Season with salt and pepper when half done and dredge with flour. When almost done baste with the gravy and ten minutes later with butter and lemon juice mixed together. Remove cover and brown. Lamb must be well done to be wholesome and of good flavor.

9. Breaded Veal Cutlets

1½ lbs. neck of veal
¼ teaspoon salt and pepper
1 egg
Breadcrumbs

Cut the meat into thin slices. Salt and pepper each cutlet, dip in beaten egg then in fine breadcrumbs salted and peppered. Fry quickly and carefully in deep fat. Serve with tomato sauce, or butter and lemon juice or other piquant sauce. Accompany with spinach.

10. Fried Breakfast Bacon on Toast

½ lb. bacon
6 pieces buttered toast

This is a simple, delicious dish quickly prepared and especially suitable for breakfast. Have the bacon cut thin (it cannot be cut too thin), and the rind removed before cooking unless "bacon curls" are desired. Heat the frying pan, lay in the slices of bacon and cook till clear, then turn them. Serve dry and hot upon toast. A

quicker and even better way of cooking is to lay the slices of bacon in deep hot bacon fat. It will require but a few moments to cook them "just right" and they are never greasy, but deliciously crisp.

11. Breaded Ham with Eggs

6 thick slices of cold boiled ham
3 eggs
Breadcrumbs, salt pepper
6 triangular pieces of toast

Season one beaten egg, dip ham into egg then in breadcrumbs and fry in deep bacon or pork fat. Brown well on both sides. Serve slices of cold boiled eggs on top of each piece of meat and garnish with toast points.

How to Make a Little Meat go a Long Way.

The best way to make a little meat go a long way is by combining it with less expensive foods. These dishes are not only inexpensive but palatable and nutritious, and in many instances combining *all* of the necessary food elements. They are time savers as well, one being able frequently to cook a whole meal in one kettle and serve it on one platter.

These recipes are meant to be suggestive only of the many combinations which are possible, not exhaustive.

I. Pigs in a Puddle

½ lb. lean pork, raw or cooked
1 medium sized onion
1 cup cooked rice
1 medium sized head of cabbage
½ teaspoon sage
1 bay leaf
Salt, pepper and paprika to taste
1 qt. tomatoes

Grind meat and onion. Add rice and sage, salt, pepper and paprika. Mix well. Trim off the outer unsightly leaves of the cabbage, pull the others apart and throw them into a pan of boiling salted water. Boil 5 minutes. Drain and cool. Wrap a tablespoon of the meat mixture in each leaf and fasten with a wooden toothpick. Lay the "pigs" in a shallow, greased pan, cover with tomatoes, (quart), well seasoned with salt and pepper and add bay leaf. Bake ¾ hour in a hot oven.

2. Bacon with Potatoes in the Half Shell

¼ lb. bacon
6 medium sized potatoes

Select flat potatoes as nearly uniform in size as possible and best quality bacon sliced *very* thin. Scrub potatoes well; dry and cut in half lengthwise. Lay in a shallow pan, covering the top of each half of potato with bacon strips and bake till done in a moderate oven. Serve on a pretty platter accompanied by the bacon drippings.

3. Apples Stuffed with Sausage Meat

1 cup sausage meat
6 large, firm, sour apples

Core the apples and fill with the sausage meat. Place in a shallow pan containing ½ cup hot water. Bake in a moderate oven one hour, basting frequently.

4. Beef Stew

2 lbs. chuck roast
6 potatoes
1 turnip
1 carrot
1 onion
1 qt. water
1 teaspoon salt
½ teaspoon pepper

Cut meat into small pieces and place in bottom of kettle. Dice vegetables and cover meat with them. Pour the water (cold) over all, and season. Cover closely. Bring slowly to the boiling point and allow to boil briskly for two or three minutes, then simmer for two hours.

5. Noodle Hoodles

1 lb. hamburg steak (ground)
1 egg, well beaten
1 onion (small) minced
½ cup bread soaked in
½ cup milk
1 qt. beef broth
Salt, pepper
Noodle dough

Make a dough just as for noodles. Roll thin and cut into four-inch squares. Mix other ingredients well and put a spoonful in each square of dough. Roll up, pinching dough together and drop into boiling beef broth. Boil ten minutes.

6. Chipped Beef with Hominy

¼ lb. chipped beef
3 cups cold boiled hominy

Make a white sauce into which drop the chipped beef well cut up. Season the hominy and fry a golden brown. Turn hominy out on a hot platter being careful that it retain a solid shape and pour the creamed chipped beef around the mound of hominy. Serve at once.

7. Chipped Beef with Eggs on Toast

⅛ lb. chipped beef
6 eggs
6 pieces of toast

Cut the beef in squares. Poach the eggs in round tins. Heat the squares of beef and lay on squares of hot buttered toast. Place poached eggs on top of beef and serve at once.

8. Savory Eggs with Cauliflower Snow

1 large head of cauliflower
6 eggs
4 tablespoons minced boiled ham
2 tablespoons minced parsley
2 tablespoons melted butter or Crisco
6 squares buttered toast
Salt and pepper to taste

Soak cauliflower in weak salt water for ½ hour. Drain and break flowers apart; plunge into boiling salted water and boil till tender. Drain and set close to fire till quite dry. Press through a fruit press or potato ricer upon a hot platter, being careful to have it fall in center of platter where it must lie undisturbed. Dot with bits of butter. Surround the snow with savory eggs and serve at once very hot. A simple salad and desert are all that are needed to have a complete meal "fit for a king!"

Savory Eggs

Grease six small egg molds. Mix the ham, parsley and seasonings well together. Put an equal quantity in the molds, shaking it well around the sides. Break the eggs gently into the molds, being careful not to break the yolk, sprinkle with salt and pepper; cover and poach till well set. Have toast ready and turn one egg on each square of toast and serve.

Sufficient for six persons yet the cost is slight.

9. Irish Stew

2 lbs. breast of mutton—cut in small pieces
6 medium sized potatoes—sliced
1 medium sized carrot—diced
2 medium sized onions—sliced
2 small or 1 large tomato—cut in bits
1 stalk of celery, minced, or ½ teaspoon celery salt
1 bay leaf
Salt, pepper and paprika to taste
1 tablespoon parsley or ½ teaspoon kitchen bouquet
2 tablespoons drippings or Crisco
Cold water

Brown onions in drippings, add the meat and brown each piece on all sides. Cover meat two inches deep with cold water. Add seasonings, cover close and stew till the meat is very tender, which will take two hours at least.

Meanwhile put potatoes, carrot, tomato, celery and parsley on to stew in cold water. Bring slowly to the boil, and boil for ten minutes. Drain, throwing away the water, and put vegetables in with the meat. Season to suit taste and cook gently till done.

Take up vegetables on a hot chop plate, and dish up the meat around the vegetables. Cover and set where it will keep hot. Let the liquid in the saucepan boil and while boiling rapidly, stir in a teaspoonful of cornstarch to thicken. Stir well, then add one cup of milk and one cup of cooked peas. Cook five minutes and pour over the vegetables and meat. Send at once to the table. This is an excellent dish when properly prepared and a good way to cook any of the cheaper cuts of mutton.

10. Bacon with Fried Apples

½ lb. first quality bacon
3 tart apples of medium, uniform size
3 tablespoonfuls milk

Fry bacon in deep hot bacon fat till lightly browned (if none is on hand, dry pan the bacon). It requires but a few moments. Take up at once before it burns. Have apples washed and sliced crosswise without peeling or coring. Dip in the milk and fry quickly in the fat left by bacon. If there is not enough bacon grease in pan to cover apples, add Crisco and when hot—*not smoking*—drop in the apples. When well browned, take up quickly, being careful that the apples are not broken. Sprinkle with sugar and arrange about the bacon. Serve at once with dry toast. This dish is excellent for breakfast or lunch in winter especially.

11. Settin' Hen's Nest

1 cupful of macaroni or spaghetti
1 cupful of minced cold meat
2 eggs well beaten
1 tablespoonful minced nut meats (almonds preferred)
½ cupful bread crumbs
Salt, pepper, flour
2 qts. water
2 tablespoonfuls butter or Crisco

Nest

Boil macaroni in 2 qts. of rapidly boiling salted water till tender. Drain and fry in hot butter or Crisco for five minutes. Season to taste. Pile on hot, flat plate in form of a nest. Tomato sauce may be poured over nest or around it or it may be omitted.

Eggs

Mix nut meats and one well beaten egg together. Heat through and set aside till cool; flour hands and shape mixture into egg shapes, roll in beaten eggs and bread-

crumbs and fry in deep hot fat. Heap the eggs in center of the nest and it is ready for the table. This is good to look at and good to eat.

12. Braised Pork Chops with Vegetables

6 pork chops
2 cupfuls stock or hot water
2 tablespoonfuls drippings
½ cupful each of chopped carrots, onions, turnips, tomatoes and celery
Salt, pepper and flour

Fry a small onion in the hot drippings. Brown the chops in the same fat and then lay on top of the vegetables which have been spread over the bottom of a roasting pan. Pour over all the grease from the frying pan and the hot water or stock. Cover closely and cook for one hour in a moderate oven. The chops should then be turned, seasoned with salt and pepper and dusted with flour. Cook uncovered till brown on both sides, turning in fifteen minutes. The chops may be served on the bed of vegetables or, if liked, a sauce may be made by pressing the vegetables through a sieve, allowing it to boil up once and then pour over the chops. Mutton or lamb chops may be treated in the same way.

13. Chuck Beef and Lima Beans

1 lb. chuck beef
1 pt. dried lima beans
3 small onions sliced
2 tablespoonfuls beef fat
2 tablespoonfuls flour
2 cupfuls stewed tomatoes
1½ teaspoonfuls salt
Pepper and mace to taste

Soak the beans over night. Cook till done and drain. Cut beef into inch pieces. Brown with the onions in the fat, stir in the flour and seasonings. Alternate layers of the beans, meat and tomatoes in a casserole or buttered baking-dish. Barely cover with boiling water and cook for three hours in a slow oven, replenishing the water as it boils away to keep the mixture moist.

Meat Substitutes

Cheese, nuts and eggs furnish the most valuable meat substitutes, supplying the necessary food elements at a greatly reduced cost. By their use the cost of living may, in many cases, be reduced to one-half of what it is now. Meat eaters are apt to eat too much meat. In that event, there is an excess of protein consumed which acts as a poison and affects the whole system, becoming a source of weakness rather than strength. Few women know how to make good meat substitutes. Yet, if a little time and careful attention be given to this subject, an astonishing variety of well-balanced meals can be provided for "half price."

Rice and Cheese

1 cupful rice
4 qts. salted water
2 cupfuls milk
1 tablespoonful butter
2 tablespoonfuls flour, blended with cold milk
1 cupful grated cheese
Breadcrumbs

Cook rice in salted, boiling water for twenty minutes. Drain in colander (save water for soup stock). Make sauce of milk, butter and flour. Cook until smooth and creamy. On the bottom of a buttered baking-dish spread a layer of rice, layer of cheese and then layer of sauce. Alternate till dish is full. Sprinkle breadcrumbs over the top and bake for twenty minutes in a moderate oven.

Cheese and Macaroni Loaf

½ cupful macaroni
1 cupful milk
1 cupful breadcrumbs
½ cupful grated cheese
3 eggs well beaten
1 tablespoonful butter
1 teaspoonful onion
1 teaspoonful parsley
1 teaspoonful salt
1 teaspoonful pepper
2 qts. boiling salted water

Throw the macaroni into the rapidly boiling water and cook for thirty minutes. Cook the onion and parsley in a separate pan. Mix all together and bake twenty minutes. Serve with tomato sauce.

Fried Cheese Balls

2 egg yolks slightly beaten
1½ cupfuls grated cheese
⅔ cupfuls milk
1 tablespoonful butter (heaping)
2 tablespoonfuls flour
¼ teaspoonful salt
Paprika or pepper to taste
Breadcrumbs

Make a thick sauce of the butter, flour, milk, salt and pepper. Stir into it the eggs and cheese. Mix well. Remove from the fire as soon as the cheese begins to soften. Turn into a shallow, well-buttered pan. Shape into balls, when cold, roll in breadcrumbs and fry in smoking hot fat.

Pimento and Cheese Roast

3 pimentos
4 ounces cream cheese
2 cupfuls lima beans (cooked)
Breadcrumbs

Put pimentos, cheese and beans through a food chopper. Mix thoroughly, add enough breadcrumbs to form into a roll. Bake twenty minutes, basting occasionally with water and butter. Serve with bacon gravy or tomato sauce.

Mock Fish.

1 cupful pecan nut-meats
1 cupful black walnut-meats
2 cupfuls cold boiled hominy
½ cupful breadcrumbs
2 hard-boiled eggs chopped fine
1 tablespoonful minced parsley
1 tablespoonful minced onion
1 well beaten egg
Salt and pepper to taste

Grind nut-meats; mix with other ingredients. Bake in a buttered fish-mold one-half hour in a moderate oven. Garnish with lemon and parsley and serve with Hollandaise sauce or drawn butter.

Nut Scrapple

2 cupfuls corn-meal
1 cupful hominy
1 tablespoonful salt
2 cupfuls hickory-nut meats

To the meal, hominy and salt add enough boiling water to cook thoroughly into a double boiler till thick as mush. Grind nut-meats and add to the other mixture as soon as it is done. Pour into a buttered shallow pan. When cold, slice and fry a golden brown in butter or hot fat.

Nut Loaf

1 cupful chopped nut-meats
2 cupfuls breadcrumbs
½ cupful hot water
½ cupful melted butter
1 egg well beaten
1 teaspoonful mushroom ketchup
½ teaspoonful onion juice
1½ teaspoonfuls salt
¼ teaspoonful pepper

Mix ingredients in order named adding more seasoning, if desired. Bake one hour in a moderate oven, covering the first half hour of the time. Baste every fifteen minutes with melted butter. Serve on a hot dish with brown sauce.

Nut and Potato Balls

2 cupfuls hot mashed potatoes
1 tablespoonful minced parsley
1 tablespoonful minced onion
2 tablespoonfuls butter (heaping)
Salt, pepper and paprika to taste

Mix well; divide into equal portions. Shape into meat balls, open in the center, put in a few nut-meats. Bake on a buttered tin for fifteen minutes. Serve hot with any good sauce.

Escalloped Eggs and Celery

4 hard boiled eggs chopped
2 cupfuls diced cooked celery
1 cupful celery stock
¾ cupful buttered breadcrumbs
1½ cupful milk
4 tablespoonfuls butter
4 tablespoonfuls flour
1 teaspoonful salt
⅛ teaspoonful pepper
⅛ teaspoonful onion juice

Cut celery into dice. Simmer in water to cover till tender. Add one cupful of the liquid to the milk; blend flour, butter and seasonings and mix with the celery and liquid. Put a layer in a buttered baking-dish. Sprinkle over a layer of the eggs. Alternate till the dish is full. Cover with the crumbs and bake in a moderate oven till well-browned.

Cheese and Celery au Gratin

¾ cupfuls grated cheese
2 cupfuls diced celery
2 cupfuls water
2 tablespoonfuls flour
2 tablespoonfuls butter
1 cupful rich milk or cream
¾ cupful buttered crumbs
Salt and pepper to taste

Cook celery in water till tender; add one cup of the water off celery to the milk. Blend the butter and flour, add liquid gradually. Boil up once; add seasoning and celery. Fill a buttered baking-dish with alternate layers of above mixture and cheese. Put in the oven to brown.

Turkish Eggs

3 tablespoonfuls cooked rice
2 tablespoonfuls tomatoes
1 poached egg
½ teaspoonful Worcestershire
Parsley, celery, onions, breadcrumbs

Shape rice into a flat, round cake. On top put tomatoes, stewed with a bit of celery, onion and a few breadcrumbs. On top of that place a poached egg. Add Worcestershire to the eggs. Garnish with parsley and serve with toast. (Individual service).

Breaded Eggs

3 cold hard boiled eggs sliced
1 well beaten egg
Pepper and salt to taste
Parsley, tomato sauce

Dip each slice of egg into beaten egg and then into seasoned crumbs. Let stand in a cold place for one hour. Fry a golden brown in deep hot fat. Garnish with parsley. Serve with tomato sauce.

USE OF "TRIMMINGS," FAT AND DRIPPINGS

There is an old adage "Look out for the pennies—the dollars will take care of themselves." Look out for the "small" items of waste and you will find, too, that it will mean dollars in your pocket.

One of those small (?) items is the matter of "trimmings" from your meats. Don't let timidity get ahead of common sense. If it requires nerve to ask your butcher for what belongs to you, the trimmings (which, by the way, *he* has the nerve to resell for from 6 to 8 cents per pound), then by all means acquire the *"nerve."* It will just mean a saving of about $50 yearly in the average home. "Small" item?

Here are some practical suggestions of what to do with "trimmings": If much meat is used, it is necessary to provide a small crock with lid for each kind of fat, i. e. one for bacon, beef, chicken, ham, lamb, etc. Keep covered in a cool place. The fat of mutton cannot be used for cooking but it is good for chapped hands and such purposes. Bacon fat lends itself best to general use but chicken fat is a good substitute for butter or olive oil, the pork and ham fine for beans and beef, and lamb for deep fat frying, although beef fat can be used in other ways also. Ice-cold bacon fat properly rendered and clarified may be used for pie or bread, or devil's food, molasses or spice cake.

How to "render" or "clarify." In other words, how to get the trimmings and drippings ready for use. The trimmings of fat may be allowed to accumulate for two or three days in summer and in winter for as long as a week at a time. Then cut them up in small pieces and place in a skillet over the fire and allow to fry slowly till all grease is extracted from the bits of fat. Stir occasionally and keep well covered. Add any drippings or cakes of fat saved from the top of meat-liquor and as soon as all are melted remove from the fire to cool.

To clarify. As soon as the grease is cool—but not cold—pour through a double thickness of cheese cloth, or one thickness of cloth laid in the bottom of a fine sieve, replace on the stove and cook in it a raw potato. When the potato is browned well, remove and pour fat into the vessel prepared for it. It is then ready to use and is wholesome and sweet. All fats will become rancid if kept too long without re-heating, the weather determining largely how long they will keep sweet. Burn the cheesecloths and when a crock gets empty, be sure to scald it out well before beginning a new "batch."

Any fats not suitable for cooking purposes may be rendered and used for making the best of soft soap.

One year's fair trial of using fats, trimmings and drippings as recommended will be enough to convince any housewife that it pays.

USE OF LEFT-OVERS

Introduction

Even the housekeeper far above the average has her troubles in dealing with left-overs. The time to begin planning what to do with left-overs is when buying the food. To attempt to treat this subject in *full* would require more space than can possibly be given here but for the benefit of all we offer some plain, practical helps which will go far toward solving problematic left-overs.

The first thing to learn is to *throw nothing away,* not even a crumb of bread. A use can be found for practically everything. The careful, conscientious housewife does not buy fresh materials when the ice-box displays a collection of odds and ends of food, even if it does look discouraging. Cooked foods are not the only left-overs that must be looked after. At the end of the week, despite careful buying and planning, there is always a small quantity of various things left, such as, a few potatoes, a handful of rice, one or two onions, etc. No two households are apt to

have the same things left on hand, but a little thought will result in utilizing a number of these foods, which are frequently thrown away for no better reason than that there was "only a little dab of it, anyway."

What to do with Stale Bread. The rapidity with which stale bread accumulates is a source of worry and alarm to more than one good housewife. In many homes little thought is given to its use, and bread is deliberately thrown out without a qualm. In other homes, well-meaning mothers, in their effort to be saving, all too frequently convert stale bread into puddings which are unwholesome and expensive.

Intelligent watch over the bread-box is necessary to keep the waste within bounds. There should always be a supply of bread crumbs on hand and the best way to prepare them is to run the stale bread through a food-chopper, using the finest blade. Put the crumbs in a glass jar and they are ready for use. These crumbs may be used in escalloped dishes or for "dressing," for thickening tomatoes, or for rolling croquettes, etc. in for frying, and numerous other ways.

Some special uses to be recommended are the following ones:

1. Hot Bread Cakes

1½ cupfuls stale breadcrumbs
1½ cupfuls hot milk
2 tablespoonfuls butter
2 eggs, well beaten
½ cupful flour
½ teaspoonful salt
4 teaspoonfuls baking-powder

Mix milk and butter and pour over crumbs. Add eggs and mix thoroughly, then sift in dry ingredients. Drop by spoonfuls on a hot well-greased griddle. Brown well on both sides. Serve with butter and syrup.

Brown Bread

2 cupfuls stale bread crumbs
1½ pt. cold water
1¼ cupfuls molasses
1½ cupfuls each of Graham flour, cornmeal and rye meal
2 teaspoonfuls salt
3½ teaspoonfuls soda
1¾ cupfuls cold water

Soak bread in the pint and half of cold water over night. Rub through a sieve and add molasses and other ingredients in order named. Steam for three hours.

3. Tip Top Omelet

3 eggs
1 cupful bread crumbs
½ cupful milk
1 tablespoonful butter
Salt and pepper to taste

Boil the milk, add butter and mix with the crumbs. Add salt and pepper and yolks of the eggs well beaten. Stir in gently the whites of the eggs stiffly beaten. Melt butter in frying pan and pour in mixture and brown.

4. English Monkey on Toast

1 cupful breadcrumbs
1 cupful milk
1 egg
½ cupful cream cheese
1 tablespoonful butter
Salt, pepper and paprika to taste
6 pieces of buttered toast
¼ lb. lettuce

Soak crumbs in milk. Melt the cheese in the butter, add the bread and milk and egg well beaten with seasonings to taste. Cook till creamy and serve on lettuce leaves on the buttered toast or crackers.

What to do with Sour Milk

Sour milk should not be allowed to go to waste. It is nourishing and can be utilized in many ways. Many recipes are improved by substituting sour milk and soda for sweet milk and baking-powder. Pancakes, corn bread, gingerbread, devil's food cake, waffles and biscuits are only a few of the good things to be cited for example.

Queen Bonny

This dish is in perfection in the summer, when milk sours quickly. Pour the milk before it has soured into a pretty glass dish. Allow the milk to settle into a firm "bonny clabber," as the Scotch say. Set on ice for an hour or two before serving. It may be served plain or with maple sugar or nutmeg sprinkled on top. This is delicious for supper.

Cottage Cheese

Set a pan of clabber in a slightly hot oven. As soon as the whey and curd separate, pour into a cheese-cloth bag and drain. Do not squeeze the bag. When well drained, empty into a dish and set in the refrigerator till serving time. It may be served mixed with salt, pepper and sweet or sour cream, or seasoned and made into small balls to be served with the salad course. Another pleasing variation is to line some wet molds with the cheese, fill with Waldorf salad, turn out on lettuce leaves and serve with French dressing.

Southern Crumb Pie Filling

1 cup stale breadcrumbs
½ cupful hot water
½ cupful cold water
1 tablespoonful vinegar
½ tablespoonful butter
3 tablespoonfuls brown sugar
½ teaspoonful grated nutmeg

Soak crumbs in hot water till all are wet. Add the other ingredients well mixed and turn into pie-crust. Cover with strips of pastry laid on latticewise.

Sour Cream Dressing

¾ cupful sour cream
½ cupful mild vinegar
1 tablespoonful sugar
½ teaspoonful salt
1 pimento chopped fine

Mix well, chill and serve with plain, shredded lettuce. This is simple but delicious.

Sour Cream Pie

1 cupful sour cream
4 eggs
1 cupful sugar
1 cupful raisins chopped fine
½ teaspoonful cloves
4 tablespoonfuls powdered sugar

Add the sugar, raisins, cream and cloves to the well beaten egg yolks. Cook in a double boiler till creamy. Pour into a baked pie-crust and place in the oven till set. Beat the egg whites till stiff. Add gradually the powdered sugar and cover the top of the pie with this meringue. Return to the oven and brown slightly. Served cold with cheese, this is most appetizing.

Sour Milk Pie

2 cupfuls sour milk
½ cupful raisins
½ cupful currants
½ teaspoonful salt
½ teaspoonful cinnamon
2 teablespoonfuls molasses
1 tablespoonful melted butter

Mix together; pour into a crust-lined tin; place strips of pastry latticewise over the top and bake till crust is done. Serve hot.

Sour Milk Cake Filling

½ cupful sour cream
½ cupful sugar
½ cupful chopped nut meats
Yolks of two eggs well beaten
¼ teaspoonful vanilla

Mix sugar and cream together. Boil for five minutes. Add the rest of the ingredients. Boil in a double-boiler till thick and creamy enough to spread.

Meats

Hash

The numerous ways for using left-over meats, grants little excuse for throwing any away, however small the scraps may be.

1 cupful chopped cold meat—any kind—free from fat or gristle
2 cupfuls chopped cold boiled potatoes
1 onion chopped very fine
Salt, pepper and flour

Mix, season and place in a small dripping pan. Dredge with a little flour; pour in at the side of the pan enough water to come up level with the hash. Do not stir. Bake in a moderate oven uncovered till the flour has formed a slightly browned sort of crust. Add a lump of butter, stir it through several times just before serving. This is not "boarding-house hash," but hash "like Mother used to make." It is delicious.

Lancastershire Meat Pie

1 cupful chopped cold beef or veal
2 cupfuls hot freshly mashed potatoes seasoned as for table
1 minced onion

Mix meat and onion; season to taste. Put alternate layers of meat and potatoes in a shallow baking-dish. Dot with bits of butter and bake till nicely browned.

Savory Meat Rolls

1 cupful finely chopped, cold cooked ham, beef or chicken
¼ cupful breadcrumbs
1 egg well beaten
Salt and pepper
2 cupfuls flour
1 teaspoonful baking powder
½ teaspoonful salt
1 heaping tablespoonful shortening
1 tablespoonful milk

Mix meat, crumbs, egg and seasonings (crumbs and egg may be omitted by using gravy to moisten meat instead.) Shape into small rolls. Make a short dough of the other ingredients; roll thin. Cut into strips and cover each roll of meat with a strip of dough, being careful to cover the meat completely and to keep the rolls uniform in size and regular in shape. Bake in a quick oven. Serve hot for breakfast, dinner or supper.

Salmon Timbales

1 cupful left-over salmon (or other fish)
1½ cupfuls white sauce
½ cupful breadcrumbs
Salt, paprika
1 tablespoonful lemon juice

Heat the salmon and sauce, add the yolks of the eggs and other ingredients. Beat the whites of the eggs stiff. Add to the fish mixture, folding in lightly. Bake in individual moulds for twenty minutes. Serve hot with white sauce; garnish with lemon.

Breaded Mutton

6 thin slices cold mutton
1 egg well beaten
Breadcrumbs
1 tablespoonful milk

Dip each slice of meat in the egg and crumbs and fry in deep fat.

Scalloped Chicken or Turkey

2 cupfuls cold, roasted or boiled fowl
1 cup gravy or stock or milk
1 heaping teaspoonful butter
1 heaping teaspoonful flour
Pepper and salt to taste

Melt the butter, add the flour. Cook till creamy, add the meat and if too thick pour in a little more milk. Sprinkle a buttered baking-dish with crumbs, pour in the mixture. Cover with a thick layer of crumbs, dot with butter and bake for twenty minutes in a moderate oven. Serve at once.

Ham Patties

2 cupfuls cold cooked ham chopped fine
3 beaten eggs
3 cupsful breadcrumbs
Sweet milk enough to make a soft batter

Mix well, drop into gem pans, dot with butter and bake till browned.

Mock Veal Cutlets

3 cupfuls cold minced veal
3 cupfuls coild boiled rice
½ cupful stock, water or milk
1 small onion minced
Season with salt, pepper and butter
1 egg well beaten
1 tablespoonful milk
Breadcrumbs

Mix meat, rice and stock, onion and seasonings. Shape like cutlets, roll in beaten egg, diluted with milk and dip in crumbs. Fry in deep fat to a golden brown.

Croquettes

Take 1 lb. finely chopped meat any kind. Season with salt, pepper, lemon juice, and ½ teaspoonful onion juice. Break an egg into a cup, then fill the cup with cream or stock. Mix all together. Shape into small cones. Roll in egg and crumbs and fry in deep fat.

Vegetables and Other Left-Overs.

Bean Loaf

1 cupful cooked beans
1 cupful cooked tomatoes
1 cupful cream
1½ cupfuls crumbs
Salt and pepper to taste

Mash the beans fine. Add the other ingredients, mixing thoroughly. Bake for one hour in a buttered pudding-dish in a moderate oven. Serve cold in slices.

Left-Over Oatmeal Pudding

2 cupfuls left-over oatmeal
½ cupful breadcrumbs
½ cupful chopped raisins
1 cupful chopped apple
1½ cupfuls milk
1 cupful sugar
2 eggs well beaten
Pinch of salt

Mix well. Bake in a buttered pan twenty minutes in a moderate oven. Serve plain or with sauce or cream.

Vegetable Hash

Chop left-over vegetables—any on hand—such as potatoes, cabbage, parsnips or turnips, and season to taste. Put a tablespoonful (more or less according to the amount of vegetables) of butter or drippings in a frying pan. When hot, drop in the mixed vegetables. Sprinkle flour over the top of mixture. Then add a tablespoonful of boiling water. Cover quickly to keep in the steam. When heated thoroughly, take off cover and stir through several times. Serve hot in a hot dish.

Orange Peel Novelties

Do not throw away orange peel. Wash and scrape the white skin from the peel; then cut length wise into narrow strips. Cover well with cold water, bring slowly to the boil and boil for twenty minutes. Drain. Repeat this twice. Make a syrup of 1-3 as much water as sugar, put the peel in and boil till syrup spins a thread. Roll each piece in granulated sugar.

Left-Over Vegetable Salad

This salad may be made of left-over cooked carrots, turnips and beets. Cut the vegetables in small pieces, mix with chopped celery. Dress with French dressing. This is appropriate to serve with cold meats.

Sweet Potatoes—Left-Overs

2 cupfuls sliced crosswise sweet potatoes —boiled or baked
3 tablespoonfuls butter
2 tablespoonfuls mild vinegar
2 tablespoonfuls brown sugar

Heat the butter in a small baking-dish. Drop the potatoes in. Stir gently till all are coated with the butter. Sprinkle the sugar over the top and pour the vinegar over lightly. Bake uncovered until a golden brown.

Left-Over Hard Boiled Eggs

Remove the shells. Cut whites lengthwise in eighths. Arrange on a bed of lettuce in the shape of a daisy, using the yolks for the center of the flower and the whites for the petals. Serve with French dressing. If the yolks are creamed with a bit of butter and cheese and seasoned, then formed into balls for the center, they are very delectable.

Soups and Gravies

Good soups furnish appetizing nourishment as well as an excellent means for disposing of left-overs. They can be supplied at little, if any, additional cost. So, also, can good gravy. The economical housewife should master the art of making both. It is simple and easy and worth while.

The "middle class" people are prone to hold soups in contempt but are excessively fond of gravys, which is, all too frequently, just another word for grease.

The foundation for soups and gravies is "stock," which is the liquid in which

meat, bones or vegetables have been cooked. The stock kettle may be kept on the back of the stove to receive the bones, bits of meat too small to be used otherwise, gristle, odds and ends of vegetables and the water most vegetables are cooked in—macaroni, rice, potatoes and turnips, for example. Even a cold fried egg may be chopped up and put into the soup pot. Everything put in must be fresh.

At the end of the day remove from the fire, turn into a crock. Let stand till the fat rises to the top. Remove the cake of fat, reheat the stock, which will likely have settled into a firm jelly. Strain through a fine soup-sieve and your "stock" is ready to use. Stock from fresh meat and vegetables is made in the same way. Cold water should be used, a little salt to help extract the substances, and the stock allowed to cook slowly for hours. Use an iron pot but do not allow the stock to cool in it. "Stock" with vegetables in, sours more quickly than meat stock. In summer cook the vegetables separately and add when you go to use the stock. Stock left over must be boiled each day.

An endless variety of soups, broths, purées and gravies can be made from this stock. Once this basis of all soup-making is understood the rest is easy.

The secret of good gravy lies in having it well-cooked and free from greasiness. This may be insured by removing all fat from the stock used for gravy and using browned flour to thicken with. The gravy will then require little cooking and be digestible and appetizing. Less butter will be needed for table use, if good gravy is served. To brown flour, put a quart of it in a pan; set it in the oven or on top of the stove. Stir often till it is lightly browned all through. Keep some of this on hand all the time. Gravies require rapid cooking and plenty of stirring.

ECONOMICAL HELPS

The thoughtful housewife will learn how to turn everything to good account in cutting down the cost of living. The judicious use of canned goods, brown sugar, dried fruits and fish, macaroni and hominy are only a few of the many aids to be mentioned. Rice and the economical possibilities of home-made bread deserve especial attention, however.

Rice

It is a well-known fact that rice forms the chief article of diet of both the Chinese and the Japanese. Yet it is claimed that, if the Orientals fed on the rice used in this country, they would starve. Orientals use rice only in its natural or unpolished form. We, of America, demand the polished because it is "prettier to the eye," so the millers claim. The difference in the food value of polished and unpolished rice may be seen by the following table.

	Proteid	Fat	Sugar	Starch
Polished Rice	7.79	.28	.73	79.61
Unpolished	8.33	1.65	.69	76.74

The unpolished rice is not only almost twice as nourishing but just about half as expensive. Need anything further be said here to prove the superiority of the unpolished rice over the polished?

Something further *does* need to be said, though, regarding the peculiar merits of rice, which deserves its increasing popularity. Rice ranks next to milk in food value. Being rich in carbohydrates, it is well-adapted for the workingman's bill of fare; being easy to digest (boiled rice is digested in one-half the length of time it takes for milk) it is especially valuable for infants and invalids, particularly those with weak stomachs; being freer from alkaline salts than any other food, it is very efficient in cases of Bright's Disease (as it does not overtax the kidneys) as well as in auto-intoxication. As an eminent authority puts it "Rice, properly cooked, is digested without difficulty by the stomach and holds healing in its soft starches and mild albuminoids, poulticing pain and coating sore surfaces."

Properly cooked—"Aye, there's the rub!" This same authority has well said that "rice, as a rule, suffers more in the clutches of the average American cook than any other vegetable." The pasty mess, stiff enough to stand alone, or so watery as to look like coarse and ill-made starch, which figures as boiled rice" deserves the contempt in which it is held by those so imposed upon. It is in those homes where rice puddings are counted as "cheap and fillin' " and rice never appears on the table in any other form, although its rightful place is to accompany meat and gravy or go to make up a valuable meat substitute.

It is evident then that the housewife should know how to prepare properly.

Plain Boiled Rice—No. 1

1 cupful unpolished rice
2 qts. boiling water (or even more)
2 teaspoonfuls salt

Wash the rice in at least four waters and drain. Put the salt in the water which must be boiling at a gallop when the rice goes in, and must continue to boil rapidly till the rice is done, which should be at the end of twenty minutes. Do not stir with a spoon while cooking. When done drain thoroughly (the water drained off should be saved to use in soups, etc.). Toss rice lightly into a heated colander and set in the oven for a few minutes to dry. Each grain should stand out proudly by itself. Serve in a hot, open dish and eat with butter, salt and pepper or gravy.

Boiled Rice—No. 2

1 cupful rice (unpolished)
1 qt. boiling water
1 teaspoonful salt

Proceed as in No. 1. When rice is done, the water will all be absorbed. A tablespoonful of butter, three tablespoonfuls of grated cheese and salt and pepper to taste may be added just before sending to the table or the rice may be left plain and eaten with cream and sugar.

Rice lends itself to numberless variations, but the secret of success in all recipes lies in the boiling. So do not forget, *never* put rice on to cook in cold water, always allow from a quart to a gallon of water in which to cook one cup of well-washed rice, and allow one teaspoonful of salt to each quart of water, and boil furiously from start to finish, if you would not serve a "pasty mess."

Bread

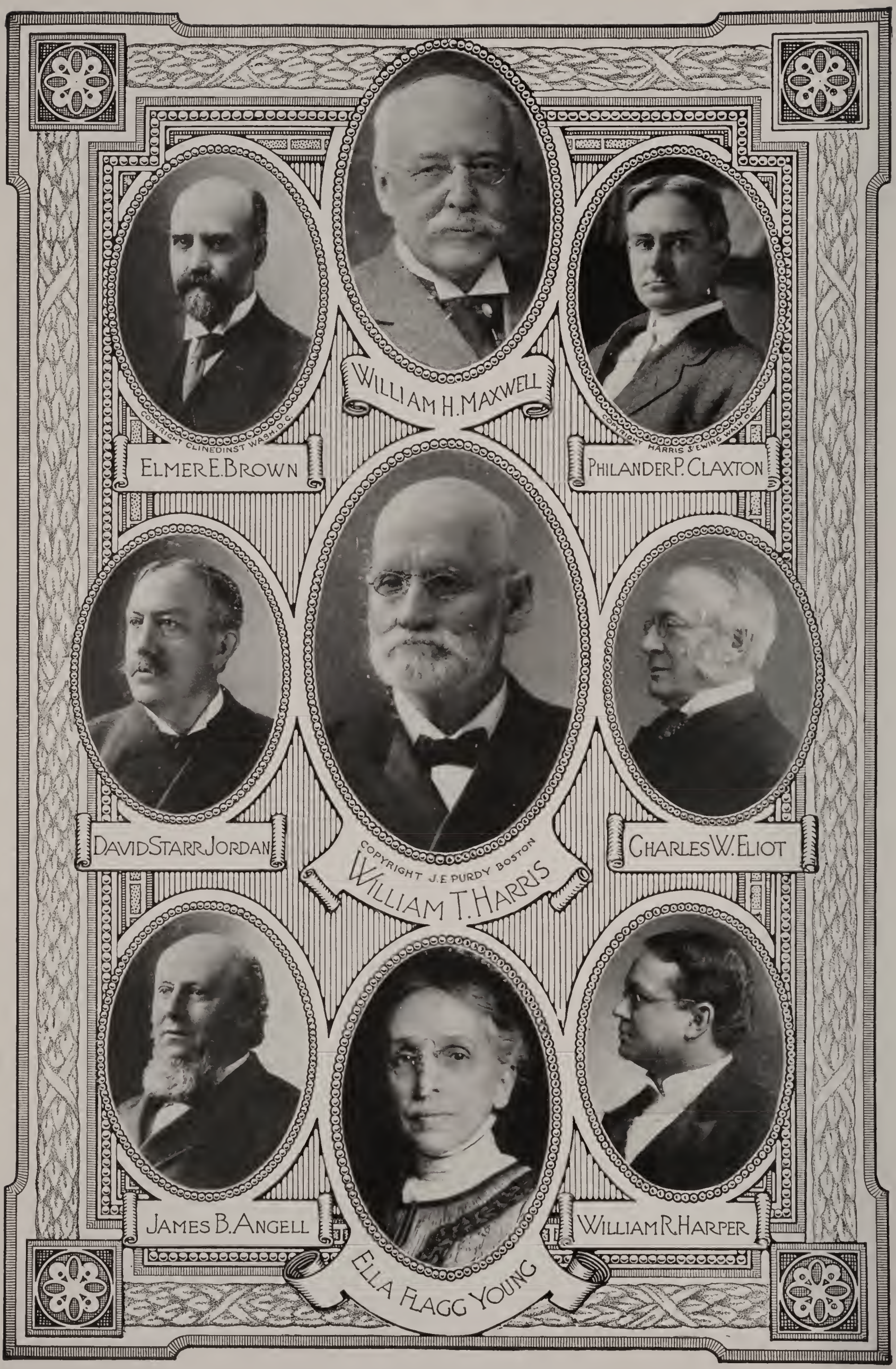
"Weight for weight bread contains more food than meat" (see lesson on bread in Standard Reference Work) was not said of baker's bread. Even though home-made bread costs equally as much as baker's, (not including the work of the housewife) it is the more economical because it is *far* ahead in nutrition, to say nothing of the difference in the taste.

However, with wheat and flour soaring in prices it is expedient for us to examine ourselves and see if we are among the numbers whom our leading chemists rightfully dub "extravagant." If white flour is being used we are. True economy, as has been said before, lies in securing the greatest food value for the amount of money spent.

We must know something then about flour. Most flour, nowadays, is, like rice, designed "to please the eye of the consumer," who, owing to a lack of "flour knowledge," believes that the whiter the flour, the better, while in reality the whiter the flour, the less its strength-giving properties. Whole wheat flour is superior to white by the same principle which makes unpolished rice excel the polished.

Rye flour is equally as nourishing as wheat flour and costs from $1.50 to $2 less per barrel, while oatmeal, which makes a most delicious bread is even cheaper and more nutritious still. Cornmeal is not to be despised. It is wholesome and not much more than half as expensive as wheat flour.

FLEDA V. FINNELL



AMERICAN EDUCATORS

THE RURAL SCHOOL

INTRODUCTION

When we think of all the good work that has been accomplished in a country school and of the many illustrious men and women who received their first lessons there, we are not in much danger of overestimating its advantages. The country school is the training school of the nation. Out of it have come not only the great bulk of representative citizens but also not a few of the leaders. This may be due partly to the fact that half a century ago only the elect could go to college, so the country school was the university of the people. Doubtless, too, it is due to the peculiar advantage it offers. In no other class of schools is the idea of family life so nearly carried out. Here we have the big brother or sister keeping guard over the little ones. The younger pupils gain much from this association with the older ones, and these in turn are helped through the assistance they give to those in the lower classes. Intimate acquaintance with the teacher and with each other stirs emulation, and the self-sacrifice that even an elementary education often necessitates calls for the earnest expenditure of time and brains.

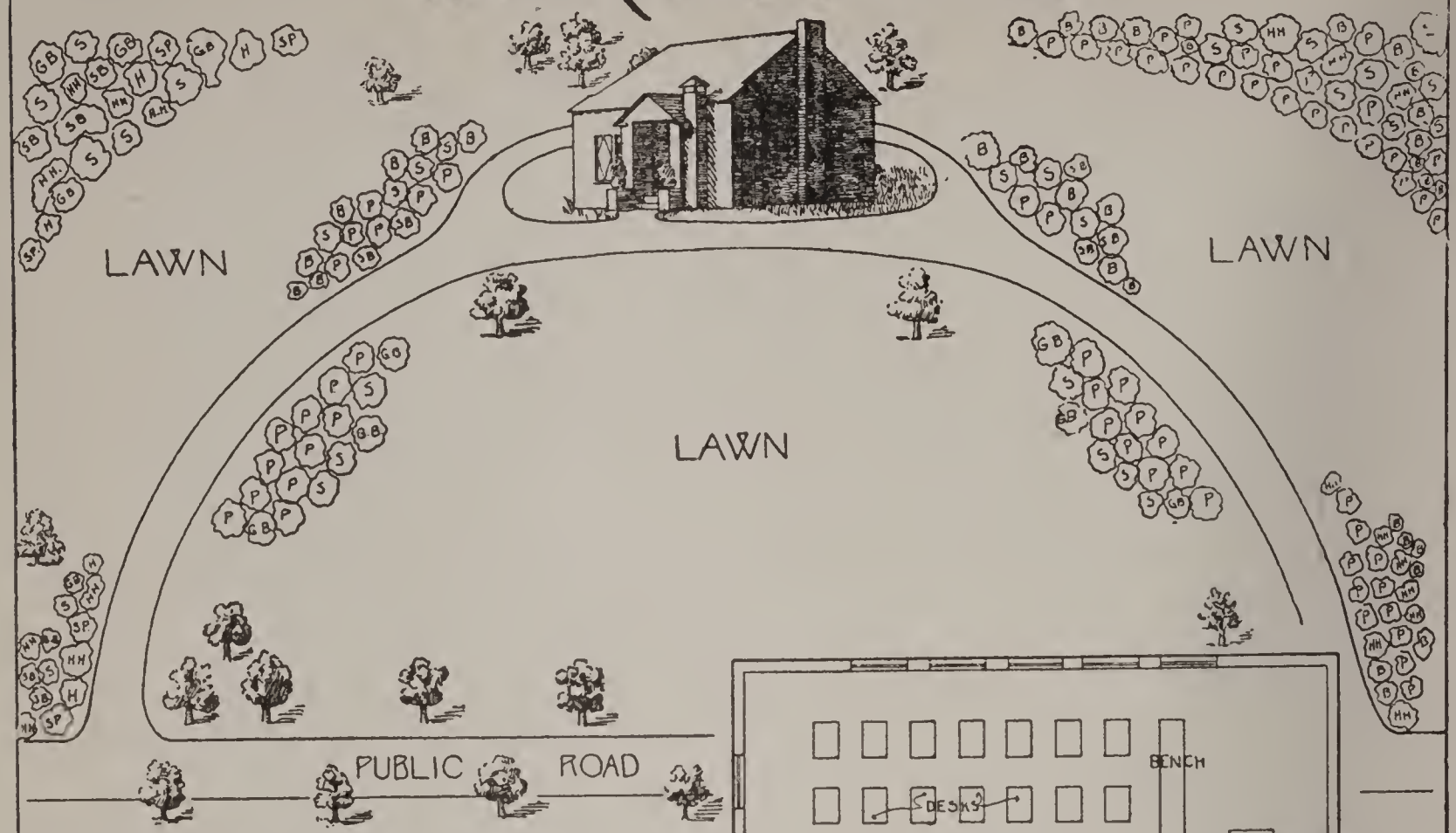
From the point of view of the teacher, the variety in ages and work lends novelty to life and keeps from getting into a rut. There is constant opportunity for being a part of the life of the community—such as the city teacher knows nothing about. Moreover, many rural teachers are receiving good salaries, and country life is becoming more and more attractive. As to the importance of the work there can be no question when we consider that 95 per cent of country school children go no further. The best teachers with the best training and the best buildings fully equipped are none too good for the country; and the people in rural districts cannot invest too much in the training of their children nor be too cautious in the selection of a teacher.

THE SCHOOL

LOCATION. The selection of the site for a schoolhouse is of the greatest importance. It should be located on dry ground where good drinking water can be obtained easily and where the soil is suited to the growth of hardy trees. Furthermore, it should be near a good road and where it is easily accessible by the majority of children. If possible the schoolhouse should be away from loud noises, such as are made by railroads, mills, etc. Moreover, the new interest in agriculture is demanding that it be situated on soil suitable for a vegetable or flower garden. A pleasant slope with a background of trees is an excellent situation. It should be sheltered from the wind and the outlook should be pleasant.

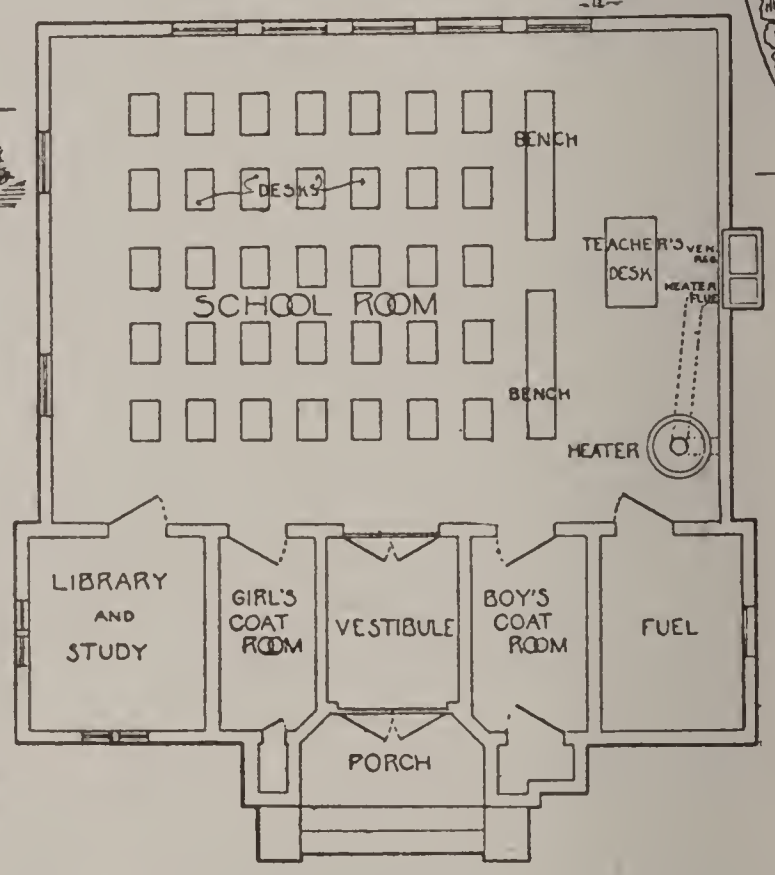
PLAN. In planning a one-room country school the first consideration should be one that meets the requirements of a comfortable, sanitary, and convenient schoolhouse for the children. A number of new schoolhouses have met these requirements admirably. The exterior appearance is neat and attractive, suggesting a home as well as a school. The main room provides seats for thirty pupils, with a possible capacity of forty-five. Every door is within plain view of the teacher, as is also the playground. The walls are tinted in some restful shade, such as olive green, the ceiling being a light cream. Model schoolrooms of this description are about twenty-

The Rural School



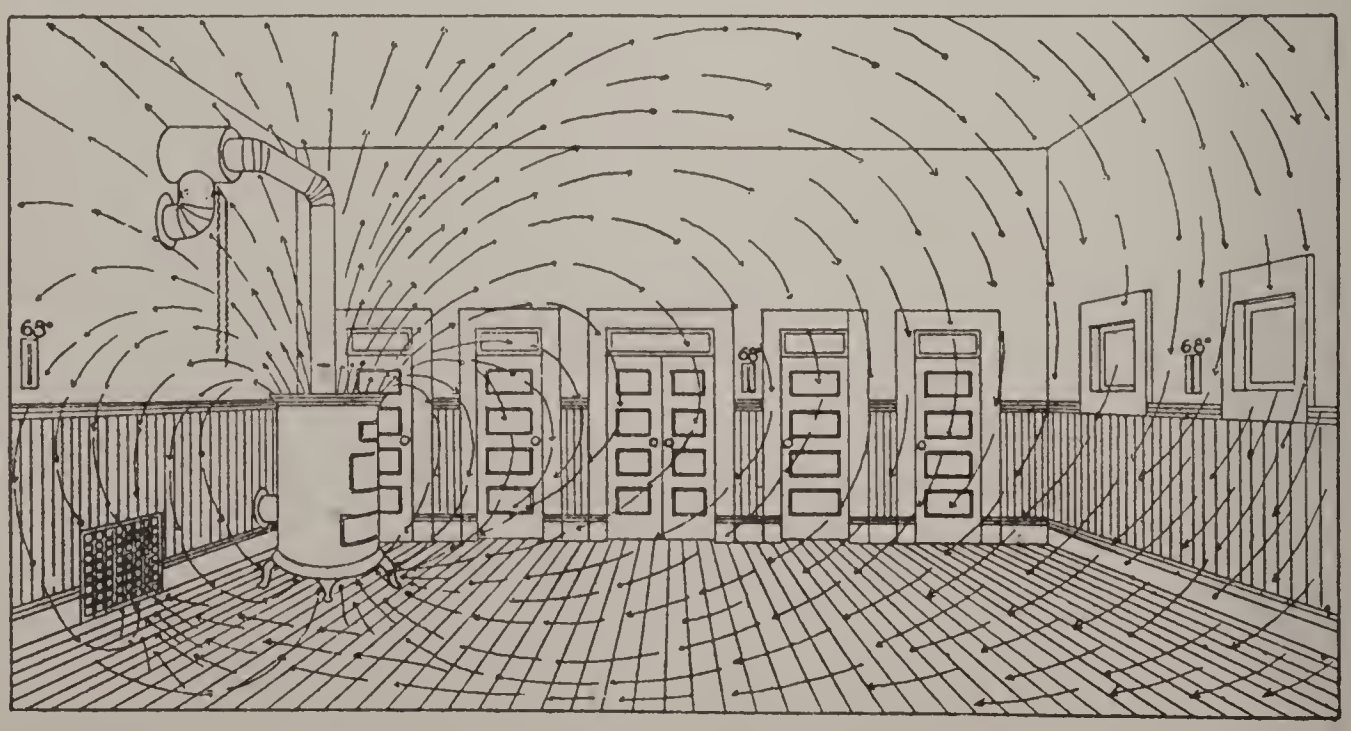
PLAN OF SCHOOL GROUNDS, INCLUDING WALKS, TREES, AND DETAIL OF SHRUBBERY

SB- Snowball.
S- Syringa.
P.- Privet.
GB- Golden Bell.
SP- Spiraea.
HH- Hollyhock.
H- Hydrangea.
B- Barberry.



FLOOR PLAN OF BUILDING, SHOWING SUITABLE ARRANGEMENT FOR A ONE ROOM SCHOOL

A METHOD OF HEATING AND VENTILATING FOR SECURING FRESH AIR AND UNIFORM TEMPERATURE THROUGHOUT THE ROOM.



HMH

four feet wide by thirty-two feet long and thirteen feet high, thus providing about 285 cubic feet of air space for each of thirty-five pupils.

In addition to the main room, a good schoolhouse should have separate cloak rooms for boys and girls, large shelves where lunch pails may be kept, strong hooks well fashioned, and racks for rubbers and umbrellas. Good ventilation of these rooms may be secured by having transoms over the doors and an air space below them. The entrance to both should be from the main room and in view of the teacher.

The library room is one of the most useful parts of a country school. It should be supplied with good bookcases, a large table, and chairs enough for several pupils. Besides, it can be made useful in many ways as a reading and reference room. The little children may move about here without disturbing the older classes, and here upper classes may be conducted, especially when the work calls for the use of library books; and often, when the main schoolroom is used for some other purpose, it is convenient to lock books away in the library until the next morning. A couch for use in cases of illness is an excellent addition. Many of the new country schoolhouses are provided with fuel rooms on the same level as the main room, instead of in the basement as formerly. These are lined with heavy planks and building paper to prevent the escape of dust. The advantages of such an arrangement are obvious and the expense, if the fuel room is arranged for in the original plan, is less than the cost of a separate shed.

FURNISHINGS AND EQUIPMENT

SEATING. The room should be provided with seats varying in size with the ages and sizes of the children. This is not only an aid to good order but is absolutely essential to the physical well-being of the pupils. In some of the older schools seats were arranged so that all the smallest ones were in front and the largest at the back. A better way is to let the seats in one row from front to back be of one size, as this takes away the necessity of putting a large desk back of a small one.

LIGHTING. There should be abundance of light, coming from the north when possible, and at the left of the children. The windows should be curtained with green shades, which should be hung so as to shut out light either from above or below as desired. If it is necessary to have windows in the rear of the room they should be placed so high that the light cannot cast a shadow on the pupil's work. It will thus be unnecessary to provide these windows with shades. In no case should the desks be so placed that the sun will shine into the eyes of the pupils. Nor should the blackboards be of such material or color as will cause a strain upon the eyes of the pupils.

HEATING AND VENTILATING. The ideal method of heating is, of course, a hot-water, steam, or hot-air furnace. But even when these are impossible the room can be kept comfortable by means of a stove. Various devices have recently been perfected by which the heated air is sent evenly over the whole room. One of these is what is known as the Smith system. A sheet-iron jacket having a circle of holes above, through which the heated air may come out, is placed around the stove. Near the floor the jacket communicates with a fresh-air pipe supplied from the outside. The principle is simple; the air being heated rises, escapes through the holes near the top of the jacket, and settles in the room near the walls. This starts another current toward the stove, which in turn passes under the jacket and is heated and rises. Thus the air is kept constantly in motion and is fresh and pure. There are many other ways, but this is simple and remarkably effective, for it insures the even distribution of air of a warm temperature and it does away with the necessity of opening windows for fresh air.

The foul or vitiated air is removed as shown in the illustration. It passes out of the chimney with the warm smoke from the stove. Sometimes this chimney is made with a double flue—one side being for smoke, the other for foul air.

MISCELLANEOUS FURNISHINGS. Among the most important are these: **A**

teacher's desk with drawers supplied with locks, a bookcase, a library for reference and circulation, text-books for the teacher's desk, dictionaries, a suitable encyclopedia, wall maps, a globe, dustpan, poker, fire shovel, waste basket, vessels and sticks for measuring, foot scraper, thermometer, a rain gauge, kindergarten materials for the little ones, a good clock, paper towels, a sweeping preparation or a vacuum cleaner for removing dust. The children should provide their own drinking cups. The choice and quality of blackboards should be given considerable attention. In general slate is considered best, though various substitutes are acceptable and easier to put up. The best blackboards are four feet high and placed thirty inches from the floor, being thus low enough for the smallest children. Blackboards should always be provided with chalk rails, and good crayons and erasers are further requisites. There should be a good well and separate privies for the sexes on the school grounds. The teacher should see that the privies are kept clean, are always in good order, are not defaced by scribbling, and, if possible, are screened by trellises and vines.

Schoolroom Decoration

From the standpoint of decoration the schoolroom should be made as pleasing as possible. Avoid sticking all sorts of articles on the walls, on shelves, or over the blackboard. One or two pictures large enough to be seen across the room, well framed and well hung, do more to make the room attractive than dozens of calendars and highly colored chromos. Pictures of educational value and inexpensive plaster casts are easy to get. The Perry Picture Company and the Prang Educational Company have excellent material, and P. P. Caproni & Co., Boston, make a specialty of casts suitable for schoolroom decoration.

It is an excellent plan for the teacher to have on hand several one-cent Perry pictures early in the year, for by talking about them to the children she can generate an interest which, if properly directed, will result in good pictures for the schoolroom. When once the children's tastes are developed, an entertainment, a lecture, or a basket supper furnishes the necessary means, and it is not too much to say that here the teacher has an opportunity for developing an esthetic sense that will later express itself in tastily arranged rooms and well chosen decorations. The study of great pictures offers a larger possibility for the cultivation of good taste than any other subject and, judged by its relation to life, it is more practical than many required by the course of study.

EXTERIOR IMPROVEMENT

The secret of keeping the older children interested in school lies largely in the character of the schoolhouse. And this applies not only to the interior but to the schoolyard as well. The practical difficulty seems to be a lack of public sentiment in regard to the beautifying of school property. In some counties, however, great progress has been made, largely by issuing bulletins and printed matter containing illustrations of all sorts of schoolyards. A second method has been the presentation of ways and means in teachers' institutes. In this connection O. J. Kern's *Among Country Schools* is a most interesting contribution. It tells in a fascinating way how he awakened a new interest in school agriculture and gives numerous practical suggestions. In this article only a few hints are possible:

1. Plant trees first, for they require a longer time for development. Determine what kinds grow best in the particular locality and soil. A good way to start interest is to have an Arbor Day program and to precede the planting with other forms of tree study. Set the trees out in irregular rows, bearing in mind chiefly their appearance as background and their value as wind-breaks. Leave openings wherever there is an open view of a pleasing stretch of country or good buildings. Some good varieties of trees are maple, oak, spruce, elm, and box elder.

2. Plant shrubbery next, especially the kinds that make good covering for

unsightly outbuildings or hard foundation lines. Vines, such as woodbines and creepers, are excellent for this purpose. Even vine-covered posts and fences give beautiful effects, though in general it is not well to cover woodwork, for vegetable growth is hard on paint and wood.

3. Next plant hardy perennials—hydrangeas, snowballs, rose bushes, lilacs—in general, those blossoming shrubs which we cherish chiefly for their beauty and fragrance. Arrange them in clusters or groups, never in straight lines. Be sure to leave the front of the schoolhouse in view from the road and to leave playgrounds bare except for surrounding hedges.

4. The Walks. In planning the walks first take into account permanent objects, such as trees and buildings. Determine next the main lines of travel leading to the schoolhouse and use these as a basis for the permanent walks. If the distances are short the walks should be straight.

5. Lawn. The grasses for the lawn will vary according to the soil in different localities—blue grass, white clover, bent grass, Bermuda grass, etc., make good lawns. The soil must be properly prepared for the grass and the lawn should be well kept. Some spots can be kept free from tramping, but in the main children should be allowed the freedom of the playground.

6. The School Garden. The idea of a school garden is practically new everywhere in rural communities, and in many localities it is still unfavorably received, for the old theory that children are sent to school to master the three R's is dying a hard death. In communities where parents and school officers fall in readily with the broader conception of education the problem is easy. When there is opposition the work must be approached with tact and carried on very slowly.

In the first place, the teacher must bear in mind that the point of view for the city child is different from that of a country school child. As a rule children in rural communities are familiar with the simple operations of the garden—preparing the soil, planting the seed, cultivating, and harvesting—whereas to city children the growth of the plant is like the discovery of a new world. Therefore, the plan should differ somewhat. Instead of planting tiny vegetable gardens it might be better by means of grasses to test different kinds of soils and methods of tillage, for this at once brings the country child face to face with the facts of chemistry and of scientific methods of experimentation. On the part of the teacher lessons like these will call for preparation, but much fine material on the subject has been published and most of it can be had for the asking. In many states considerable advance has been made in the scientific study of the growth of common grains—oats, barley, flax, etc. Corn has received the most attention. In some communities the study has progressed so far as to include chemical tests for the soil, minute analyses of crops, investigations and comparisons of corn crops in different countries and under different conditions, food value, rotation of crops, etc. In such districts there has been so much enthusiasm that the boys have planted gardens of their own and entered their crops in state and local contests.

Aside from the scientific and analytical features of the work there is the decorative side. Naturally the girls will take more interest in this feature of the work, for the study of flowers and plants used chiefly for beautifying appeals naturally to them. The following is a list of plants suitable for study and for schoolyard decoration: Castor bean, canna, coleus, geranium, coxcomb, larkspur, touch-me-not, zinnia, nasturtium, and California poppy. Most of these can be started in boxes indoors and set out as soon as the weather is favorable.

The setting out of a flower garden is a complex piece of work, involving special preparation of the soil, regard for sunlight, direction of the prevailing wind, depth of seed or sprout and, most of all, the appearance of the garden in the blossoming season. Curving lines, masses, and hedgelike arrangements are generally more pleasing than the conventional round or square bed.

QUALIFICATIONS OF THE TEACHER

1. It is almost superfluous to say that the rural school teacher should be in *good health.* In many ways her work is more trying and exacting than that of the city teacher. If she does not have a long walk to and from school she should get daily exercise in other ways. While she should by all means mingle in the social life of the community, she must have regular hours of rest and relaxation.

2. The rural school teacher must be a person of *good sense,* for often this quality stands her in stead when everything else fails. The country school, with its multitudinous problems and its unexpected situations, often calls for immediate action of a kind that training does not give, and nothing but the exercise of good sense will meet the difficulty.

3. She must have special *aptitude* for her work. And this means much, for without it the daily routine will be drudgery, and her power as a vital force in the school will be lost.

4. The teacher must be *agreeable.* A sullen, morose, fault-finding person never did successful teaching in a country school. A happy, optimistic temperament is absolutely necessary in a position where there is often much to discourage.

5. The teacher must have *sympathy and patience.* She must have an inborn love of children and their ways, or she can never be an inspiration and a power with them. She must sympathize with their sorrows, pains, disappointments, struggles—for only by entering into the situation from the child's point of view can she understand and lead him.

6. She must be a person of infinite *tact,* both in dealing with the children themselves and with their parents and school officers. A careful method of approach, a little diplomacy, patience, and good humor, often win the day.

7. Furthermore the teacher must be *firm.* An undecided, yielding, compromising teacher never holds the confidence of the pupils, for yielding to their wishes does not win the respect that firmness and determination receive. Make few rules, but hold to those that are made. Allow few exceptions, extend no favors, and keep all promises.

8. It is needless to add that the teacher should be a person of *superior scholarship.* She should come to her pupils from a higher plane and be conversant with many phases of the subjects which she expects to teach. In addition to academic training, a special knowledge of methods and pedagogy is an invaluable asset. In many of the best normal schools schedules are arranged so that teachers may take some of the best courses in the summertime. Aside from these, constant opportunity for self-improvement is offered by institutes, meetings, reading clubs, and teachers' journals; and the live teacher will avail herself of as many as possible of these means of development, for in teaching a country school standing still is death.

It is very necessary that the teacher should understand that the possession of superior scholarship does not mean being pedantic. The school costs money. It is not supported to give some teacher a salary or to keep pupils out of mischief. These are mere incidents. The object of the school is to enable the pupil to become a good citizen and to earn a good living. The teacher of superior scholarship, therefore, is the one who studies life as well as books and who is thus able to make the school accomplish the purposes for which it was organized.

ORGANIZATION OF A SCHOOL

I. System

The first task of the teacher on beginning a new term is the organization of the school. This means registration and grouping of pupils, allotment of time and assignment of duties, provisions for recesses, and, in general, everything that per-

tains to the routine of the daily work. There must be a regular and systematic arrangement of classes in order that the school machinery may run smoothly and the required work be accomplished. (See your State Course of Study.)

II. The Lesson

The teacher should make a careful study of the lesson before assigning it to the class. The assignment should be definite, the class being given some special task to accomplish. The test of the pupils' work in preparation is the recitation.

The test of the teacher's work and qualifications is ability to conduct the recitation properly so that every pupil in the class feels, when the recitation is over, that it has a specific purpose and that something has been accomplished. It is fatal to permit pupils to go to their desks with the idea that neither they nor the teacher knew what they were trying to do in the exercise just closed. It may be damaging for pupils to leave the recitation with the sense of failure. If, however, they are led to see that the failure is due to them—to their not making full use or the best use of their knowledge and their powers—and if they are inspired with the determination to win success, then the sense of failure may be beneficial. But never if it comes from the idea that the teacher did not know, or did not care, or had not made the preparation necessary to proper instruction.

Questions should be put precisely and in such a manner as to create interest and to bring out originality. After the testing comes the drill, or application of the lesson, and additional information from the teacher leading up to the next lesson. A lesson is not learned until it is assimilated and becomes a part of the pupil's mental storehouse. The good teacher will endeavor to stimulate her pupils to faithful and effective work and to independence of thought. Inspiration is just as much a part of the lesson as instruction.

III. Alternation

This is a plan for diminishing the number of classes, thus enabling the teacher to accomplish the most work in a limited time. It is often desirable, especially in higher grades. The grades work together in the same class. The work of one grade is done in one year, while the other is omitted. The next year the work omitted is taken up and the first year's work dropped. This adds to the interest of the work, and is mutually helpful to the younger and the older pupils.

In the even numbered years there might be classes in the first, second, third, fifth, and seventh years in every study; in the fourth year in numbers only, and in the sixth and eighth years none at all. In the odd numbered years would be classes in the first, second, fourth, sixth, and eighth years in every study; in the third year in numbers only, and in the fifth and seventh years, no classes at all.

IV. Model Programs

Consult the pamphlet issued by Francis G. Blair, Superintendent of Public Instruction of Illinois. The pamphlet is entitled *The One-Room Country Schools in Illinois*. These programs are presented as being the best thing we have seen on this subject. We advise a careful study of them.

SPECIAL DAYS

From the founding of Plymouth Colony to the present time Special Days have been set apart by custom or by law for the purpose of commemorating important events in our history or paying tribute to the memory of great leaders. Such days should be observed by all schools and the following pages are designed to assist the teacher in their celebration.

PURPOSES. Among the many purposes to be gained in celebrating special days the following should appeal most strongly to the teacher:

1. *To Emphasize the Event.* Only those events that have exerted lasting influence on the nation or the world, such as Thanksgiving Day and Christmas are considered worthy of special celebration. And only those men whose lives and services have exerted an abiding influence in the affairs of the nation or the peoples of the world are deemed worthy of this honor. The pupils of our public schools should have the influence of these men and events permanently impressed upon them, and the special-day program furnishes one of the best means to this end.

2. *To Awaken New Interests.* Children always desire something to vary the ordinary work of the school, and they look forward with delight to the preparation of special programs.

3. *To Strengthen the Relations Between School and Home.* The parents are so busy that they seldom take time to visit the school to observe the ordinary classwork, but when specially urged some, if not most, of the mothers will come on a special day. And the more frequently the parents visit the school the stronger will their interest in it become. Invitations should be sent to each parent in the district two or three days before the program is to be given.

4. *To Inculcate Lessons of Patriotism.* The World War brought to light political and social conditions in the United States whose existence was not suspected by a great majority of our citizens. These conditions have caused the leading educators of the land to place special emphasis on the teaching of patriotism, and there is no better way for doing this than by studying the biographies of our great national leaders, such as Washington and Lincoln, and of our leading writers. In birthday programs more emphasis should be placed upon the man's character and influence, and the principles he stood for than upon his work. The characters of these great leaders should become ideals which the boys and girls will strive to emulate, and their lives should inspire the youth of the land with an undying love for their country.

5. *To Develop Character.* "Talent may be developed in solitude, but character only in the rush of the world." Experience and education lead the youth to choose ideals that he strives to follow. It is the teacher's duty to assist her pupils to form high ideals. Every special-day program is a means to this end. Pupils cannot memorize the thoughts of noble men and women without receiving a strong impulse to become like them.

6. *To Develop Confidence.* The founders of our country and leaders of its destinies have not been developed in palaces; they have come from the frontier, the farm and the small towns and villages where their characters were developed by the struggle necessary to the mastery of their environment. In the rural schools and the

schools of small towns and villages today are the boys and girls who will become the future leaders of the community, the state and the nation. One essential to leadership is ability to speak in public. The man who can stand before an audience and calmly and forcefully express his thoughts is the man who makes his influence felt, who becomes a leader. Practically all men and women who have become successful public speakers, made their first attempts in the public schools by taking part in special programs and engaging in debates. Such exercises are of the greatest value in training pupils in public speaking, and in giving them confidence in their own powers. In addition to the programs suggested on the following pages others should be planned by the teacher. Many schools find it profitable to devote a part of Friday afternoon to special exercises.

How to Succeed. 1. Have a plan and a purpose in each program.

2. Put yourself in sympathy with the day you celebrate.

3. See that the pupils catch your spirit during the preparation of the program.

4. See that each program includes all the pupils. Let each child have a part.

5. Have your program thoroughly prepared.

6. Invite the parents to attend each special-day celebration. Consult them about preparing a program, and in this way secure their interest and cooperation.

Suggestions. While each of the programs which follow is complete, it should be considered as suggestive. Local conditions may require a decided modification of the program given, and the teacher should not hesitate to make the necessary changes. Material in one program may be equally well adapted to others. For instance, a number of the selections in the Lincoln, Washington and Memorial Day programs are appropriate for anyone of them. The teacher should become familiar with all the material.

Valuable additional material will be found among the poems and stories in these volumes. See *Favorite Poems,* Vol. ix, page 103; *Stories to Tell,* Vol. ix, page 163. Articles on the history and biography that relate to the subject should also be consulted.

The songs selected are suited to the program, but others may be used if the pupils prefer to sing those they already know.

THANKSGIVING DAY

LAST THURSDAY IN NOVEMBER

Paper.....The Story of Thanksgiving
By the Teacher or an Older Pupil

Song.....Thanksgiving Hymn
By the School

Reading.....The Day of Thanksgiving

Dialogue.....What I Did on Thanksgiving Day
By Two Little Girls

Recitation.....The Feast Time of the Year
Recitation.....Thanksgiving Day
Song.....We Thank Thee
Recitation.....Little Paul's First Thanksgiving
Recitation.....Signs of the Times
Reading.....The Pumpkin
Recitation.....Thank the Creator, Not the Created
Reading.....Thanksgiving Memories
Closing Song.....America

THANKSGIVING DAY

LAST THURSDAY IN NOVEMBER

PREPARATION. Prepare the pupils for the enjoyment of the program by calling their attention to the purpose of the day at least two weeks before it occurs. Probably the school can unite in helping someone in need, and in so doing the pupils will be brought to a fuller realization of how much they have to be thankful for.

Since Thanksgiving is the celebration of the ingathering of the harvest, the schoolroom should be decorated with the fruits of the field and garden. Festoons of ripened grain, borders and other designs made of corn and autumn leaves—all tastefully arranged will transform the schoolroom into a bower of beauty. A table placed in one corner of the room and filled with fruits and vegetables with a large pumpkin for a centerpiece will emphasize the reason for the festival.

These decorations should be procured and arranged by the pupils under the direction of the teacher.

THE STORY OF THANKSGIVING DAY

(To be told by the teacher or one of the older pupils.)

Material for this story will be found in the articles THANKSGIVING DAY, PILGRIMS and HOLIDAYS in the *Standard Reference Work* and in United States histories.

The account should contain the following facts:

1. Origin of the festival.
2. Its observance in New England previous to the Revolutionary War.
3. Its spread to other States.
4. The first National Thanksgiving Day proclaimed by Washington in 1789.
5. Failure to observe a National Thanksgiving Day from Madison's administration to Lincoln's.
6. Revival of the custom by President Lincoln in 1863, due largely to the efforts of Mrs. Sarah Josepha Hale, of New Hampshire, who is known as the Mother of Thanksgiving.
7. That Thanksgiving Day is distinctively an American holiday.

THANKSGIVING HYMN

Tune, *America*

The God of the harvest praise;
In loud Thanksgiving raise
Heart, hand and voice.
The valleys laugh and sing,
Forests and mountains ring,
The streams rejoice.

The God of the harvest praise,
Hands, hearts and voices raise,
With sweet accord.
From field to garner throng,
Bearing your sheaves along,
And in your harvest song,
Bless ye the Lord.

—James Montgomery.

READING — THE DAY OF THANKSGIVING

Thanksgiving Day is the one national festival which turns on home life. It is not a day of ecclesiastical saints. It is not a national anniversary. It is not a day celebrating a religious event. It is a day of Nature. It is a day of thanksgiving for the year's history. And it must pivot on the household. A typical Thanksgiving dinner represents everything that has grown in all the summer, fit to make glad the heart of man. It is not a riotous feast. It is a table piled high, among the group of rollicking young and the sober joy of the old, with the treasures of the growing year, accepted with rejoicings and interchange of many festivities as a token of gratitude to Almighty God.

Remember God's bounty in the year. String the pearls of His favor. Hide the dark parts, except so far as they are breaking out in light. Give this one day to thanks, to joy, to gratitude!

—*Henry Ward Beecher.*

WHAT I DID ON THANKSGIVING DAY

(Dialogue for two little girls)

Mary—"What did you do on Thanksgiving?"

Nellie—"Oh, I had a lovely time. I was helped three times to turkey."

Mary—"So was I. And twice to ice cream, and I had a quarter of a mince pie, and a lot of custard."

Nellie—"I had pumpkin pie, and custard pie, and mince pie, and apple turnover. Then I had nuts and raisins."

Mary—"So did I."

Both—"And candy."

Mary—"And the next day I had the doctor."

Nellie—"So did I."

RECITATION
THE FEAST TIME OF THE YEAR

This is the feast-time of the year,
When hearts grow warm and homes more dear
When autumn's crimson torch expires,
To flash again in winter's fires.
And they who tracked October's flight
Through woods with gorgeous hues bedight,
In charmed circles sit and praise
The goodly log's triumphant blaze.

This is the feast time of the year,
When plenty pours her wine and cheer.
And even humble hearts may spare
To poorest poor a kindly share,
While bursting barns and granaries know
A richer, fuller overflow,
And they who dwell in golden ease
Bless without toil, yet toil to please.

This is the feast time of the year.
The blessed advent draweth near;
Let rich and poor together break
The bread of love for Christ's sweet sake,
Against the time when rich and poor
Must open for Him a common door
Who comes a guest yet makes a feas
And bids the greatest and the least.

RECITATION — THANKSGIVING DAY

A bustle in the kitchen,
A smell of cakes and pies,
Children running everywhere
With bright and wondering eyes.

Rows and rows of good things
On the closet shelves,
A cunning little table
All to themselves.

Such a splendid dinner
Coming on at last,
Knives and forks a-clattering,
Tongues that go as fast.

Apples in the evening,
Lots of merry play—
All this fun at grandma's
On Thanksgiving Day.

Song
We Thank Thee

(Tune, *The Morning Light Is Breaking*)

We plow the fields and scatter
The good seed on the land,
But it is fed and watered
By God's almighty hand.
He sends the snow in winter,
The warmth to swell the grain,
The breezes and the sunshine
And soft refreshing rains.

God only is the Maker
Of all things near and far.
He paints the wayside flower
And lights the evening star.
The winds and waves obey Him,
By Him the birds are fed.
Much more to us, His children,
He gives our daily bread.

We thank Thee, then, O Father,
For all things bright and good;
The seed time and the harvest,
Our life, our health, our food.
Accept the goods we offer
For all thy love imparts,
And what Thou most desirest,
Our humble, thankful hearts.

Recitation
Little Paul's First Thanksgiving

They tossed him and they squeezed him,
And they kissed him one and all;
They said "You blessed, blessed boy,"
And "Darling little Paul."
But they didn't give him turkey,
Nor any pumpkin pie,
And when the nuts and grapes went around
They slyly passed him by.

But he didn't seem to mind it,
For in the sweetest way
He sat and sucked his little thumb,
His first Thanksgiving Day.

Recitation
Signs of the Times

Air a-gettin' cool and coolah,
  Frost a-comin' in de night,
Hicka nuts and wa'nuts fallin',
  Possum keepin' out ob sight;
Tu'key struttin' in de ba'nyad—
  Nary step so proud ez his,
Keep on struttin' Mistah Tu'key,
  You do' know whut time it is.

Cidah press commence a-squeakin'
  Eatin' apples sto'ed away,
Chillin swa'min' 'roun' lak ho'nets
  Huntin' aigs among de hay.
Mistah Tu'key keep on gobblin'
  At de geese a-flin' souf.
Umph, dat bird do' know whut's comin';
  Ef he did he'd shet his mouf.

Punkin gittin' good an' yallah
  Make me open up my eyes;
Seems lak it's a-lookin' at me
  Jes' a-la'in' der sayin' "pies."
Tu'key gobbler gwine 'roun' blowin',
  Gwine 'roun' gibbin' his sass an' slack;
Keep on talkin', Mistah Tu'key,
  You ain't seed no almanac.

Fa'mer walkin' throo de barnyard,
  Seein' how t'ings is comin' on,
Sees ef all de fowls is fatt'nin'—
  Good times comin' sho's you bo'n.
Heah's dat tu'key gobbler braggin',
  Den his face break in a smile—
Nebbah min', you sassy rascal,
  He's gwine nab you atter while.

Choppin' suet in de kitchen,
  Stonin' raisins in de hall,
Beef a-cookin' fo' de mince-meat,
  Spices groun'—I smell 'em all.
Look heah, Tu'key, stop dat gobblin'
  You ain't larned de sense ob feah;
You ol' fool, yo' naik's in danjah,
  Do you know Thanksgibin's heah?

—*Paul Dunbar*

Song
Selected

READING — THE PUMPKIN

Oh! greenly and fair in the land of the sun,
The vines of the gourd and the rich melon run,
And the rock and the tree and the cottage enfold
With broad leaves all greenness, and blossoms all gold,
Like that which o'er Nineveh's prophet once grew,
While he waited to know that his warning was true,
And longed for the storm cloud, and listened in vain
For the rush of the whirlwind and red fire of rain.

On the banks of the Xenil the dark Spanish maiden
Comes up with the fruit of the tangled vine laden;
And the Creole of Cuba laughs out to behold
Through orange leaves shining the broad spheres of gold;
Yet with dearer delight from his home from the north,
On the fields of his harvest the Yankee looks forth,
Where crook-necks are circling and yellow fruit shines,
And the sun of September melts down on his vines.

Ah! on Thanksgiving Day, when from East and from West,
From North and from South, came the Pilgrim and guest,
When the gray-haired New Englander sees round his board
The old broken links of affection restored,
When the care-wearied man seeks his mother once more,
And the worn mother smiles where the girl smiled before—
What moistens the lip and what brightens the eye?
What calls back the past like the rich pumpkin-pie?

Oh, fruit loved by boyhood! the old days recalling,
When wood grapes were purpling and brown nuts were falling,
When wild, ugly faces we carved in its skin,
Glared out through the dark with a candle within,
When we laughed round the corn heap with hearts all in tune,
Our chair a broad pumpkin, our lantern the moon,
Telling tales of the fairy who traveled like steam,
In a pumpkin-shell coach with two rats for her team.

Then thanks for the present! none sweeter or better
E'er smoked from an oven or circled a platter!
Fairer hands never wrought at pastry more fine;
Brighter eyes never watched o'er its baking than thine;
And the prayer which my mouth is too full to express,
Swells my heart that thy shadow may never grow less,
That the days of thy lot may be lengthened below,
And the fame of thy worth like the pumpkin-vine grow.
And thy life be as sweet, and its last sunset sky
Golden-tinted and fair, as thy own pumpkin-pie!

—John Greenleaf Whittier.

SONG — SELECTED

Recitation

Thank the Creator, Not the Created

A little boy had sought the pump
From whence the sparkling water burst,
And drank with eager joy the draught
That kindly quenched his raging thirst:
Then gracefully he touched his cap,—
"I thank you, Mr. Pump," he said,
"For this nice drink you've given me!"
(This little boy had been well bred.)

Then said the Pump, "My little man,
You're welcome to what I have done;
But I am not the one to thank,—
I only help the water run."
"O, then," the little fellow said,
(Polite he always meant to be,)
"Cold Water, please accept my thanks;
You have been very kind to me."

"Ah!" said Cold Water, "don't thank me;
Far up the hill-side lives the Spring
That sends me forth with generous hand
To gladden every living thing."
"I'll thank the Spring, then," said the boy,
And gracefully he bow'd his head.
"O, don't thank me, my little man,"
The Spring with silvery accents said,—

"O, don't thank me; for what am I
Without the dew and summer rain?
Without their aid I ne'er could quench
Your thirst, my little boy, again."
"O, well, then, said the little boy,
"I'll gladly thank the Rain and Dew."
"Pray, don't thank us; without the Sun
We could not fill one cup for you."

"Then, Mr. Sun, ten thousand thanks
For all that you have done for me."
"Stop!" said the Sun, with blushing face;
"My little fellow, don't thank me:
'Twas from the ocean's mighty stores
I drew the draught I gave to thee."
"O, Ocean, thanks, then!" said the boy;
It echoed back, "Not unto me,—

"Not unto me; but unto Him
Who form'd the depths in which I lie;
Go, give thy thanks, my little boy,
To Him who will thy wants supply."
The boy took off his cap, and said,
In tones so gentle and subdued,
"O God, I thank Thee for this gift;
Thou art the Giver of all good."

Reading — Thanksgiving Memories

Thanksgiving! What a world of pleasant memories the word recalls; memories obscured and softened not by the mists of time but by the odorous steam rising slowly from innumerable savory dishes! Oh, the Thanksgiving dinners we have eaten; the Thanksgiving cheer of which we have partaken! We smile when we think of them, and our eyes grow misty and our hearts tender; for, alas, many who in days that are gone sat down with us at table will do so never again, and many a hand that was outstretched to us in greeting is stilled forever.

But this tinge of sorrow serves only to make our memories of those days more sweet and tender. November has come. There is a chill in the air, and in the early morning the meadows are white with frost. Then, one afternoon, a bank of dark gray clouds appears in the north, and rolls down across the sky, and presently the white flakes are falling fast. By evening, the old brown, toil-scarred earth has been clothed in a mantle of spotless white; and when morning dawns, the snow is heaped high over hill and dale. The world is ready for Thanksgiving.

And we are ready, too. For days and days, preparations have been afoot indoors. The house has been pervaded with sweet and tantalizing odors; and when, at last, the evening before the great day, we steal to the cupboard doors and slyly peep within, what a sight greets the enchanted eye! There, on the topmost shelf, are the pumpkin pies, six of them, fat and juicy, odorous with their spicy contents, baked

to a turn. Then there are the preserves and jellies set out ready for the feast—in especial, a certain marmalade, made of currants and red raspberries and I know not what besides, a flavor to ravish and delight the most indifferent palate.

And there, on the lower shelf, is the turkey,—a few short hours before the ruffled and vainglorious King of the Barnyard, with no slightest suspicion of the fate in store for him; now plucked clean, and stuffed with spiced bread and oysters, his wings turned in and his legs trussed together, waiting to occupy the place of honor at the morrow's banquet.

—*John Tremaine.*

SONG AMERICA

CHRISTMAS

Opening Song.....Joy to the World
By the School

Dialogue.....The Christmas Message
By Two Girls

Christmas Customs in Other Lands
By Nine Pupils

Song.....Jolly Old Saint Nicholas
By the School

Recitation.....A Christmas Eve Thought

Recitation.....Making People Happy

Recitation..... Jest 'Fore Christmas

Recitation.....O, Little Town of Bethlehem

Song.....Silent Night
By the School

Recitation.....Christmas Like It Used to Be

Recitation.....The Christmas Guest

Closing Song.....Selected

CHRISTMAS

PREPARATION. The teacher should begin to prepare the pupils for Christmas early in December so that they will be fully imbued with the Christmas spirit when preparing the program. The danger in celebrating Christmas lies in the fact that in their rejoicing the children may overlook the real significance of the festival. To prevent this the teacher should lead the pupils to understand that the greatest joy comes from making others happy; that Christmas gifts are expressions of good will and should be cherished more for what they represent, than for their intrinsic value.

Let the school learn and recite in concert the following passage from Lowell's *Vision of Sir Launfal.*

That is no true alms which the hand can hold;
He gives nothing but worthless gold,
Who gives from a sense of duty;
But he who gives a slender mite,
And gives to that which is out of sight,
That thread of all-sustaining Beauty
Which runs through all and doth all unite,—
The hand cannot clasp the whole of his alms,
The heart outstretches its eager palms,
For a god goes with it and makes it store
To the soul that was starving in darkness before.

The schoolroom should be decorated in evergreens and holly; if it can be procured, a small Christmas tree is appropriate, and the pupils will enjoy trimming it. If a copy of one of the great masterpieces in art—Careggio's Holy Night; one of Raphael's Madonnas or a Madonna by some other artist can be obtained, let the picture form the leading feature of the decorations.

SONG — JOY TO THE WORLD

DIALOGUE — THE CHRISTMAS MESSAGE

First Pupil — We bear the Christmas message
Brought to us so long ago.
Why have the centuries kept it fresh?
Why do we prize it so?

Second Pupil — Because it is rich with the gold of love
That with bright, exhaustless flow,
From unfailing source in the Heart Divine,
Supplies our hearts below.

And it tells of the tender, human bond,
Since ever the world began,
For it teaches the Fatherhood of God,
The brotherhood of man.

First Pupil — But how can we carry the tidings,
Make each man as loving and true
To the poor, the oppressed and the lowly,
As they are to me and to you?

Second Pupil — Let them shine in thought and word and deed,
As we work out the heavenly plan,
And, blessed by the Fatherhood of God,
Prove the brotherhood of man.

—*Jane Andrews*

Christmas Customs in Other Lands

Each pupil represents a country and he should be dressed in the costume of the land he represents. Both boys and girls can join in the exercise.

First Pupil — In Holland for many and many a year
Has the Santa Claus been seen to appear;
Each child sets his wooden shoes close by the door,
Santa fills them with gifts from his bounteous store;
But to hang up stockings suits me better by far—
Just think how lengthy the stocking legs are.

Second Pupil — The homes of France serve a feast on Christmas eve,
From the well filled table each must food receive,
Visitors and servants, the stranger at the door—
E'en the cat is fed till she can eat no more.
Each a portion of the Christmas loaf must taste,
And some, called "God's share" for charity is placed.

Third Pupil — In the land of Sweden at Christmas time you'll find
The people have a custom quaint and kind;
A sheaf of grain is nailed to a pole raised in air,
In front of each home that the birds may feast there.
'Tis a pretty custom and shall we not say
The birds also are merry on Christmas Day?

Fourth Pupil — In every German home at Christmas time you'll see,
The gaily trimmed branches of the Christmas tree.
Often Knecht Rupert with presents in a sack
Travels round and gives good children gifts from his pack;
But those who've been bad or played some naughty trick
Get only a present of a willowy stick.

Fifth Pupil — In Spain whether poverty or riches abound
In each home the Bethlehem manger is found;
A rocky hillside is built on a table,
Showing the inn and near it the stable,
With the Babe in the manger and Mary close by,
And the cattle that gaze with curious eye;
The shepherds stand near, their devotions to pay,
And the star to the Babe sends a bright golden ray.

Sixth Pupil — In Wales the custom's still kept as of yore
By the groups of singers who pass from door to door,
Pausing here and there Christmas Carols to sing,
Then refrains are sung by the people within;
The singers are asked to enter for a treat.
And are served with dishes of Christmas dainties sweet.

Seventh Pupil — In Norway still is cherished an old belief
That on Christmas eve the Christ-child seeks relief;
Through the drifts of snow or in the cold and sleet,
Along the country lanes or in the city street,
He looks for windows with lighted candles there,
For such homes their substance are willing to share.

Eighth Pupil — In homes of England long has it been the rule
To place importance on bringing in the Yule;
This great Christmas log is proudly born along
With jest and laughter, with shout and merry song;
As it blazes, Yule candles shed their mellow ray,
And people eat plum pudding on Christmas day.

Ninth Pupil — Christmas in America is best of all;
Here we have our Christmas tree stately and tall.
Here each year we greet our jolly old St. Nick,
Who comes with a pack that is high and wide and thick.
Good-will abounds; we sing a Christmas song.
We catch the Christmas spirit and pass it along;
And when it is over with warm hearts we say,
"Oh, what a merry, what a merry Christmas day."

SONG — JOLLY OLD ST. NICHOLAS

RECITATION

A CHRISTMAS EVE THOUGHT

If Santa Claus should stumble,
As he climbs the chimney tall
With all this ice upon it,
I'm afraid he'd get a fall
And smash himself to pieces—
To say nothing of the toys!
Dear me, what sorrow that would bring
To all the girls and boys!
So I am going to write a note
And pin it on the gate,—
I'll write it large, so he can see,
No matter if it's late,—
And say, "Dear Santa Claus, don't try
To climb the roof tonight,
But walk right in, the door's unlocked,
The nursery's on the right!"

—*Selected.*

RECITATION

MAKING PEOPLE HAPPY

I'm trying to make people happy this Christmas. Our minister said even the children could make folks feel glad if we only smiled and said something pleasant; so I am helping to make everyone I can get merry. I think it a real nice thing to do and I like it. I hope I can say nice things to lots of people.

Yesterday when I told my teacher good-bye I said, "I wish you a very merry Christmas, Miss Dean, and I like you even if Charlie Boggs does say you are a pug-nosed, cranky old maid." I guess she hadn't got very merry yet 'cause she wished me merry Christmas real kind of cross like.

Then on my way home I met Mr. Harris, who lives near us, and I smiled as big as I could and said, "I wish you a merry Christmas, Mr. Harris, and I hope that Santa Claus will bring you a wife." He looked sort of cranky and said, "What do you mean?" So I says, "Why the ladies at the sewing circle said you are trying to get a wife, so I hope Santa Claus will bring you one." I guess he was in a hurry for he went right off and didn't even wish me a merry Christmas.

Next, I met Mrs. Drake and I thought I ought to try and make her glad too, so I said, "I wish you a merry Christmas, Mrs. Drake, and I hope you are feeling better." She looked sort of surprised like and answered, "Why, I haven't been sick." "Oh," I said, "I thought you must be, 'cause ma said you were sick 'cause you couldn't be president of the club." I think she must be better for she walked away as if she wasn't sick a bit.

Then the minister came along and I said, "I wish you a merry Christmas," and he smiled and says he hoped I'd have the same. And I told him I hoped Santa Claus would bring him some of that life." "Life?" he says, puzzled like, "What do you mean?" "Why, some of the kind—I don't know whether it comes in bottles or by the pound, or maybe by the yard—but pa told ma he wished you'd put some life in your sermons." He went off so quick I couldn't tell if I had made him glad by saying something nice to him, but I hope I did.

Last night Tom Walker came to see my sister, Mabel. He has been coming a long time and I like him 'cause he sometimes gives me a nickel. So, while sister was upstairs putting on stuff out of bottles and boxes to make her look different from what she does, I says to Tom, "I wish you a merry Christmas and if it wasn't so cold I'd go out to Collin's sand pit and get you some of that sand for a present." "Sand? What are you talking about?" he asks. "Why I heard sister tell Aunt Mary that you needed more sand." I told him. "So I'd like to give you some. But, anyway, I hope you'll have a merry Christmas." Yes, I like to make people happy at Christmas time.

RECITATION

JEST 'FORE CHRISTMAS

Father calls me Wlliam, sister calls me Will,
Mother calls me Willie—but the fellers call me Bill!
Mighty glad I ain't a girl—ruther be a boy
Without them sashes, curls, an' things that's worn by Fauntleroy!
Love to chawnk green apples and go swimmin' in the lake—
Hate to take the castor-ile they give f'r belly-ache!
Most all the time, the whole year roun', there ain't no flies on me,
But jest 'fore Christmas I'm as good as I kin be!

Got a yeller dog named Sport—sick 'im on the cat;
First thing she knows she doesn't know where she is at!
Got a clipper-sled, an' when us kids goes out to slide
'Long comes the grocery cart, an' we all hook a ride!
But sometimes, when the grocery man is worrited an' cross,
He reaches at us with his whip an' larrups up his hoss;
An' then I laff an' holler: "Oh, you never teched *me!*"
But jest 'fore Christmas I'm as good as I kin be!

Gran'ma says she hopes that when I git to be a man
I'll be a missionarer like her oldest brother Dan
As wuz et up by the cannibuls that lives in Ceylon's isle!
Where ev'ry prospeck pleases an' only man is vile.
But gran'ma she has never been to see a Wild West show,
Nor read the life uv Daniel Boone, or else I guess she'd know
That Buff'lo Bill an' cowboys is good enough f'r me—
Excep't jest 'fore Christmas, when I'm good as I kin be!

Then old Sport, he hangs around, so sollum-like an' still—
His eyes they seem a-sayin': "What's the matter, little Bill?"
The old cat sneaks down off her perch, and wonders what's become
Of them two enemies of hern that uster make things hum!
But I am so perlite an' tend so earnestly to biz,
That mother says to father: "How improved our Willie is!"
But father, havin' been a boy hisself, suspicions me,
When jest 'fore Christmas, I'm as good as I kin be!

For Christmas, with its lots and lots of candies, cakes, an' toys,
Was made, they say, f'r proper kids, an' *not* f'r naughty boys!
So wash yer face, an' bresh yer hair, an' mind yer p's and q's,
An' don't bust out yer pantaloons, an' don't wear out yer shoes;
Say "yessum" to the ladies, an' "yessir" to the men,
An 'when they's company don't pass yer plate f'r pie again;
But, thinkin' of the things yer'd like to see upon that tree,
Jest 'fore Christmas be as good as yer kin be!

—*Eugene Field.*

Recitation

O Little Town of Bethlehelm

O Little town of Bethlehem!
How still we see thee lie:
Above thy deep and dreamless
sleep
The silent stars go by.
Yet in thy dark street shineth
The everlasting Light;
The hopes and fears of all the years
Are met in thee to-night.

How silently, how silently,
  The wondrous gift is given;
So God imparts to human hearts
  The blessings of His heaven.
No ear may hear His coming,
  But in this world of sin,
Where meek souls will receive Him, still
  The dear Christ enters in.

For Christ is born of Mary,
  And gathered all above,
While mortals sleep, the angels keep
  Their watch of wondering love.
O morning stars, together
  Proclaim the holy birth;
And praises sing to God the King!
  And peace to men on earth.

O Holy Child of Bethlehem!
  Descend to us, we pray,
Cast out our sin and enter in,
  Be born in us to-day.
We hear the Christmas angels
  The great ,glad tidings tell.
Oh, come to us, abide with us,
  Our Lord Emmanuel.

—Phillips Brooks.

Song

Silent Night

Silent night! Holy night!
  All is calm, all is bright;
Round yon virgin mother and Child!
Holy Infant, so tender and mild,
  Sleep in heavenly peace,
  Sleep in heavenly peace.

Silent night! Holy night!
  Shepherds quake at the sight!
Glories stream from heaven afar,
Heavenly hosts sing Alleluia.
  Christ, the Saviour, is born!
  Christ, the Saviour, is born!

Silent night! Holy night!
  Son of God, love's pure light
Radiant beams from thy holy face,
With the dawn of redeeming grace,
  Jesus, Lord, at thy birth.
  Jesus, Lord, at thy birth.

Recitation

Christmas Like It Used to Be

Christmas like it used to be!
That's the thing would gladden me.
Kith and kin from far and near
Joining in the Christmas cheer.
Oh, the laughing girls and boys!
Oh, the feasting and the joys!
Wouldn't it be good to see
Christmas like it used to be?

Christmas like it used to be,—
Snow a-bending bush and tree,
Bells a-jingling down the lane;
Cousins John and Jim and Jane,
Sue and Kate and all the rest
Dressed-up in their Sunday best,
Coming to that world of glee,—
Christmas like it used to be.

Christmas like it used to be,—
Been a long, long time since we
Wished (when Santa Claus should come),
You a doll and I a drum,
You a book and I a sled
Strong and swift and painted red;
Oh, that day of jubilee!
Christmas like it used to be.

Christmas like it used to be.
It is still as glad and free,
And as fair and full of truth,
To the clearer eyes of youth.
Could we gladly glimpse it through
Eyes our children's children do
In their joy-time, we would see
Christmas like it used to be.

—Nixon Waterman.

Recitation

The Christmas Guest

They sat at supper on Christmas Eve,
  The boys of the orphan school,
The least of them all arose to say
The quaint old grace in the old-time way,
  That had always been the rule,
"Lord Jesus Christ, be Thou our guest,
And share the food which Thou hast blessed."

The oaken rafters, holly bedight,
And brave in their Christmas guise,
Cast shadows down on the fair young face,
The hands clasped close, with childish grace,
The reverent, wistful eyes.
And for a moment, as he ceased,
Unheeded, smoked the Christmas feast.

The smallest scholar, then sat him down,
And the spoons began to click
In the pewter porringers, one by one,
But the little fellow had scarce begun,
When he paused, and said, "I think,"
And then he stopped with radiant cheek,
But the kindly master bade him speak.

"Why does the Lord Christ never come?"
He asked in a shy, soft way,
"Time after time we have prayed that he
Might make one of our company
Just as we did today,
But he never has come for all our prayer,
Do you think that he would if I set him a chair?"

"Perhaps, who knoweth," the master said,
And he made the sign of the cross.
But the zealous little one gladly sped
And placed a chair at the table's head
'Neath the great ivy boss,
Then turned to the door as in sure quest
Of the entrance of the holy guest.

Even as he waited the latch was raised
The door swung wide, and lo!
A pale, little beggar-boy stood there
With shoeless feet and flying hair
All powdered white with snow,
"I have no food, nor any bed,
For Christ's sake take me in," he said.

The startled scholars were silent all,
The master, dumbly, gazed,
The shivering beggar, he stood still,
(The snowflakes melting at their will),
Bewildered and amazed
At the strange hush, and nothing stirred,
And no one uttered a welcoming word.

'Till, glad and joyful, the same dear child,
Upraised his voice and said,
"The Lord has heard us now, I know,
He could not come himself, and so
He sent this boy instead,
His chair to fill, his place to take,
For us to welcome, for His sake."

Then, glad and joyful, everyone
Sprang from the table up,
The chair for Jesus ready set
Received the beggar, cold and wet,
Each pressed his plate and cup;
"Take mine, take mine," they urged and prayed,
The beggar thanked them half dismayed.

And, as he feasted, and quite forgot
His woe in the new content,
The ivy and holly garlanded
'Round the old rafters overhead,
Breathed forth a strange, rich scent,
And it seemed as if, in the green-hung hall,
Stood a presence, unseen, that blessed them all.

O, loveliest legend of olden time,
Be thou as true today,
The Lord Christ stands by every door,
Veiled in the person of his poor,
And, all our hearts can pray,
"Lord Jesus Christ, be Thou our guest,
And share the food which Thou hast blessed."

—*Susan Coolidge.*

SONG — SELECTED

LINCOLN'S BIRTHDAY

FEBRUARY 12

Opening Song.....The Red, White and Blue
By the School

Paper.....The Early Life of Lincoln
By a Pupil

Names Given Lincoln
(Each by a different pupil.)

Paper.....The Later Life of Lincoln
By a Pupil or the Teacher

Song .....Battle Hymn of the Republic
By the School

Reading.....Lincoln's Letter to Mrs. Bixby

Recitation ..... Nobility

Some of Lincoln's Famous Sayings
(Each by a pupil)

Reading.....O, Why Should the Spirit of Mortal Be Proud

Recitation ..... Let Us Be Like Him

Tributes to Lincoln
(One by a pupil)

Song ..... Columbia, the Gem of the Ocean
By the School

Reading.....Lincoln's Farewell Address on Leaving Springfield

Lincoln's Gettysburg Address
By the School

Closing Song ..... America

LINCOLN'S BIRTHDAY

FEBRUARY 12

DECORATIONS. A good portrait of Lincoln should form the chief feature of the decorations. Place the portrait in the front of the room and drape it with flags or bunting. Pictures of his Kentucky home, and his home in Springfield, of the Lincoln monuments in Springfield and Washington, of the Lincoln memorial at Hodginsville, Kentucky, and the statue of St. Gaudens in Lincoln Park, Chicago, should be used if they can be obtained. Flags and bunting should be freely used in the decorations. These can remain until after Washington's birthday.

The material for the papers, The Early Life of Lincoln, and the Later Life of Lincoln will be found in the *Standard Reference Work.* See *The Biography of a National Hero,* Volume X, page 75; LINCOLN, ABRAHAM; DOUGLASS, STEPHEN A.; SEWARD, WILLIAM H.; HAY, JOHN; CIVIL WAR. The first paper should give an account of his life up to 1846 when Lincoln was elected to Congress, and the second should take it from that point to the close.

OPENING SONG — THE RED, WHITE AND BLUE

PAPER — THE LATER LIFE OF LINCOLN

NAMES GIVEN LINCOLN

(Each by a different pupil)

RAIL SPLITTER. This name was applied to Lincoln during the election campaign for his first term as president because when a young man he had supported himself by splitting rails.

HONEST ABE. When a grocery clerk in Salem, Ill., Lincoln discovered that he had taken a sixpence too much from a customer, so he walked three miles that evening to return the money. This and similar acts caused him to be called Honest Abe.

FATHER ABRAHAM. This was a Biblical play on Lincoln's Christian name during the Civil War, and made famous by the War song, *We are coming, Father Abraham.*

UNCLE ABE. This name was used by the negroes after Lincoln issued the Emancipation Proclamation.

MARSA LINKUN. This was a favorite negro salutation.

PAPER — THE EARLY LIFE OF LINCOLN

SONG — BATTLE HYMN OF THE REPUBLIC

This hymn was written by Mrs. Julia Ward Howe in December, 1861. Mrs. Howe and her husband were visiting friends in Washington, and she was strangely moved by the preparations for War. Soldiers were encamped on every side. At night their camp fires could be seen far and near, troops were constantly marching about the streets and around the camp fires were heard the strains of *John Brown's Body,* and other patriotic songs. One night after she had retired this hymn came to Mrs. Howe and she rose and wrote it at once. It was first published in the *Atlantic Monthly.* Within a year this famous hymn was being sung throughout the country.

It was sung in Libby Prison by Chaplin C. C. McCabe, who became a prominent bishop in the Methodist Episcopal Church. Chaplin McCabe heard a negro paper seller in the street cry out, "Great news by telegraph; great battles at Gettysburg; Union soldiers won the day" and immediately sang this stirring hymn, the prisoners joining in the chorus.

Mine eyes have seen the glory of the coming of the Lord:
He is trampling out the vintage where the grapes of wrath are stored;
He hath loosed the fateful lightning of His terrible swift sword
His truth is marching on.

Chorus:

Glory, glory hallelujah, etc.

I have seen Him in the watch-fires of a hundred circling camps;
They have builded Him an altar in the evening dews and damps;
I can read His righteous sentence by the dim and flaring lamps.
His day is marching on.

I have read a fiery gospel, writ in burnished rows of steel;
"As ye deal with My contemners, so with you My grace shall deal;
Let the Hero, born of woman, crush the serpent with His heel,
Since God is Marching on."

He has sounded forth the trumpet that shall never call retreat;
He is sifting out the hearts of men before His judgment-seat:
Oh! be swift, my soul, to answer Him! be jubilant, my feet!
Our God is marching on!

In the beauty of the lilies Christ was born across the sea,
With a glory in His bosom that transfigures you and me:
As he died to make men holy, let us die to make men free,
While God is marching on.

—*Julia Ward Howe.*

READING — LINCOLN'S LETTER TO MRS. BIXBY

In 1864 Lincoln learned that Mrs. Bixby of Boston had lost five sons in the war. His letter to her is a model of tenderness and sympathy. It has been framed and hung in Oxford University as a specimen of the purest English, and most elegant diction in existence.

Executive Mansion,
Washington, Nov. 21, 1864.

To Mrs. Bixby, Boston, Mass.
Dear Madam:

I have been shown in the files of the War Department a statement of the Adjutant General of Massachusetts that you are the mother of five sons who have died gloriously on field of battle. I feel how weak and fruitless must be any word of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I cannot refrain from tendering you the consolation that may be found in the thanks of the republic they died to save. I pray that our Heavenly Father may assuage the anguish of your bereavement, and leave you only the cherished memory of the loved and lost, and the solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.

Yours sincerely and respectfully,

A. Lincoln.

Recitation
Nobility

True worth is in being, not seeming,—
  In doing each day that goes by
Some little good—not in the dreaming
  Of great things to do by and by.
For whatever men say in blindness,
  And spite of the fancies of youth,
There's nothing so kingly as kindness,
  And nothing so royal as truth.

We get back our mete as we measure—
  We cannot do wrong and feel right,
Nor can we give pain and gain pleasure,
  For justice avenges each slight.
The air for the wing of the sparrow,
  The bush for the robin and wren,
But alway the path that is narrow
  And straight for the children of men.

'Tis not in the pages of story
  The heart of its ills to beguile,
Though he who makes courtship to glory
  Gives all that he hath for her smile.
For when from her heights he has won
    her,
  Alas! it is only to prove
That nothing's so sacred as honor,
  And nothing so loyal as love.

We cannot make bargains for blisses,
  Nor catch them like fishes in nets;
And sometimes the thing our life misses,
  Helps more than the thing which it
    gets.
For good lieth not in pursuing,
  Nor gaining of great nor of small,
But just in the doing, and doing
  As we would be done by, is all.

Through envy, through malice, through
    hating,
  Against the world early and late,
No jot of our courage abating—
  Our part is to work and to wait.
And slight is the sting of his trouble
  Whose winnings are less than his
    worth;
For he who is honest is noble,
  Whatever his fortunes or birth.

—*Alice Cary.*

Some of Lincoln's Famous Sayings
(Let each pupil give one)

1. "I am nothing, but truth is everything."
2. "All I am or ever hope to be, I owe to my angel mother. I remember her prayers, and they have always followed me. They have clung to me all my life."
3. "God must like common people, or he would not have made so many of them."
4. "Let us have that faith, that might makes right, and in that faith let us, to the end, dare to do our duty as we understand it."
5. "No men living are more worthy to be trusted than those who toil up from poverty."
6. "Let us at all times remember that all American citizens are brothers of a common country, and should dwell together in bonds of fraternal feeling."

Recitation — Let Us Be Like Him

When we think of Abraham Lincoln
  Then the angel voices call,
Saying: Try to be just like him!
  Be as noble, one and all.

Be as truthful, as unselfish;
  Be as pure, as good, as kind;
Be as honest; never flatter;
  Give to God your heart and mind.

Seek not praise, but do your duty,
  Love the right and work for it;
Then the world will be the better
  Because you have lived in it.

—*Lydia Avery Coonley.*

READING

O, WHY SHOULD THE SPIRIT OF MORTAL BE PROUD

(Lincoln's favorite poem)

O, why should the spirit of mortal be proud?
Like a swift-fleeting meteor, a fast flying cloud,
A flash of lightning, a break of the wave,
He passeth from life to his rest in the grave.

The leaves of the oak and the willow shall fade,
Be scattered around, and together be laid;
As the young and the old, the low and the high,
Shall crumble to dust and together shall lie.

The head of the king, that the sceptre hath borne;
The brow of the priest, that the mitre hath worn;
The eye of the sage, and the heart of the brave,
Are hidden and lost in the depths of the grave.

So the multitude goes, like the flower or weed,
That withers away to let others succeed;
So the multitude comes, even those we behold,
To repeat every tale that has often been told.

For we are the same our fathers have been;
We see the same sights our fathers have seen;
We drink the same stream, we see the same sun,
And run the same course our fathers have run.

Yea, hope and despondency, pleasure and pain,
Are mingled together in sunshine and rain;
And the smile and the tear, and the song and the dirge,
Still follow each other like surge upon surge.

'Tis the wink of an eye; 'tis the draught of a breath
From the blossom of health to the paleness of death,
From the gilded saloon to the bier and the shroud;
O, why should the spirit of mortal be proud?

—William Knox.

TRIBUTES TO LINCOLN

(One by each pupil)

He was the most perfect ruler of men the world has ever seen.

—Edwin M. Stanton.

No hand was ever stretched towards liberty that was not grasped and championed and saved by Abraham Lincoln.

His constant touch and sympathy with the people inspired the confidence which enabled him to command and wield all forces of the republic.

—Chauncey M. Depew.

Patient when saddest, calm when sternest,
Grieved when rigid for justice's sake;
Given to jest, yet ever in earnest,
If naught of right or truth were at stake.

—H. H. Brownell.

The angels of your thoughts are climbing still
The shining ladder of his fame,
And have not ever reached the top, nor ever will
While this low life pronounces his high name.
—*Elizabeth Stuart Phelps Ward.*

How humble, yet how hopeful, he could be;
How, in good fortune and in ill, the same:
Nor bitter in success, nor boastful he,
Nor thirsty for gold, nor fev'rish for fame.
—*Tom Taylor.*

Abraham Lincoln is one of America's immortals. He grows in the affections of the people with each passing year. He was a product of our civilization, reared among the people, and their friend. He has seldom, if ever, been surpassed in simplicity of expression and force of argument. He was wholly devoted to his country's welfare and followed lofty ideals. He fought principles rather than men, and thus avoided the bitterness of personal antagonisms. His birth, his boyhood, his political contests, his public life and his tragical death combined to give him a unique place in our nation's history.

—*William Jennings Bryan.*

The life of Lincoln should never be passed by in silence by old or young. He touched the log cabin and it became the palace in which greatness was nurtured. He touched the forest and it became to him a church in which the purest and noblest worship of God was observed. In Lincoln there was always some quality which fastened him to the people and taught them to keep time to the new of his heart. He reveals to us the beauty of plain backwoods honesty.

—*Prof. David Swing.*

From humble parentage and poverty, old nature reared him,
And the world beheld her ablest, noblest man.
Few were his joys, many and terrible his trials,
But grandly he met them as only truly great souls can!
Our nation's Martyr, pure, honest, patient, tender—
Thou who didst suffer agony e'en for the slave—
Our flag's defender, our brave, immortal teacher!
I lay this humble tribute on thy honored grave.
—*Paul DeVere.*

Our children shall behold his fame,
The kindly, earnest, brave, foreseeing man,
Sagacious, patient, dreading praise not blame,
New birth of our new soil, the first American.
—*James Russell Lowell.*

SONG — COLUMBIA, THE GEM OF THE OCEAN

RECITATION — FAREWELL ADDRESS ON LEAVING SPRINGFIELD

(Lincoln's Farewell Address at Springfield, Ill., on leaving for Washington, February 11, 1861.)

My Friends: No one, not in my situation, can appreciate my feeling of sadness at this parting. To this place, and the kindness of this people, I owe everything. Here I have lived a quarter of a century, and have passed from a young to an old

man. Here my children have been born, and one is buried. I now leave, not knowing when or whether ever I may return, with a task before me greater than that which rested upon Washington. Without the assistance of that Divine Being who ever attended him, I cannot succeed. With that assistance, I cannot fail. Trusting in Him who can go with me, and remain with you, and be everywhere for good, let us confidently hope that all will yet be well. To His care commending you, as I hope in your prayers you will commend me, I bid you an affectionate farewell.

Lincoln's Gettysburg Address

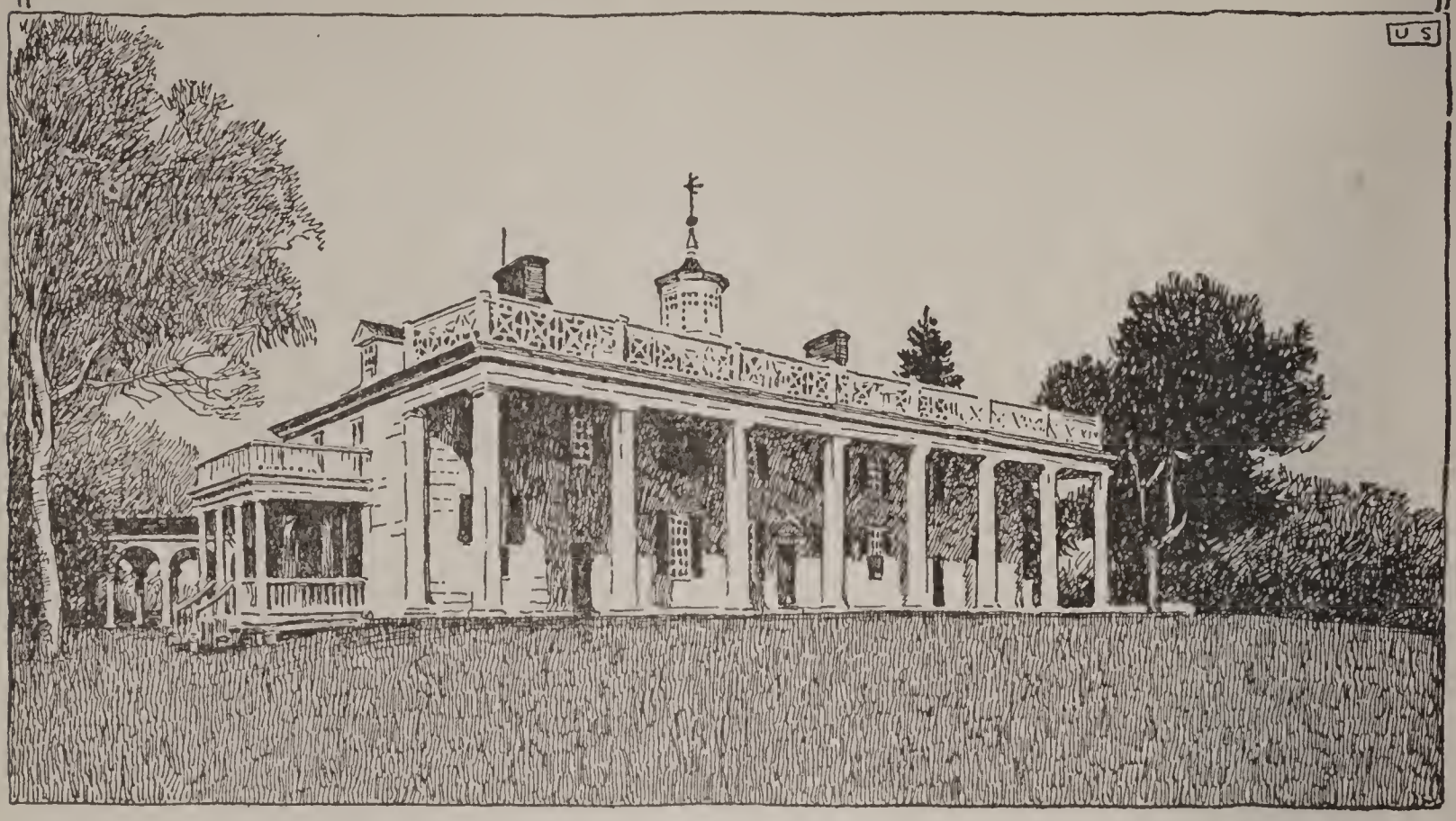
(This address should be learned and recited by the school.)

Four score and seven years ago, our fathers brought forth upon this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that the nation might live. It is altogether fitting and proper that we should do this.

But, in a large sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here, have consecrated it far above our power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here.

It is for us, the living, rather to be dedicated here to the unfinished work which they who fought here have thus so far nobly advanced. It is rather for us to be here dedicated to the great task remaining before us,—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion,—that we here highly resolve that these dead shall not have died in vain,—that this nation, under God, shall have a new birth of freedom.—and that government of the people, by the people, for the people, shall not perish from the earth.

Song America



WASHINGTON'S BIRTHDAY

FEBRUARY 22

Opening Song ..... America

By the School

Paper .....The Early Life of Washington

By a Pupil or the Teacher

Recitation ..... Our Colors

By Three Pupils

Recitation ..... The Birthday of Washington Ever Honored
Song ..... Washington

By the School

Recitation .....The New George Washington

By a Small Boy

Maxims of Washington
(Each by a different pupil)

Recitation ..... I Would Tell

By Four Boys

Song ..... Selected

Tributes to Washington
(Each by a different pupil)

Reading .....Epitaph on Washington
Song .....Mount Vernon Bells

Quotations from Washington's Writings
(Each by a different pupil)

Recitation .....God Give Us Men
Recitation ..... George Washington
Closing Song .....The Star-Spangled Banner

WASHINGTON'S BIRTHDAY

FEBRUARY 22

PREPARATION. Although Washington's birthday comes only ten days after Lincoln's, it should be celebrated. There is no danger of placing too great emphasis upon Americanism in the public schools, and the time devoted to teaching lessons of patriotism such as may be learned from the lives of the founders and preservers of the nation is most wisely used.

Replace the portrait of Lincoln with one of Washington and the other Lincoln pictures with pictures of Mount Vernon, the Washington Monument, Washington Crossing the Delaware, the Washington Elm, Martha Washington, or other pictures of the period, and use the other decorations put in place for Lincoln's birthday. Let some pupil who can make good letters or the teacher place under the portrait in red, white and blue:

"FIRST IN PEACE; FIRST IN WAR; FIRST IN THE HEARTS OF HIS COUNTRYMEN."

SONG — AMERICA

PAPER — THE EARLY LIFE OF WASHINGTON

This paper may be prepared by one of the older pupils or by the teacher. It should emphasize Washington's work before the Revolutionary War. For material see the articles: WASHINGTON, GEORGE; MOUNT VERNON; BRADDOCK, EDWARD; in the *Standard Reference Work.*

OUR COLORS

For three pupils. Each pupil should carry the color he describes, and all should repeat the last stanza together.

Red — Red! 'tis the hue of battle,
The pledge of victory;
In sunset light, in northern night,
It flashes brave and free.
"Then paint with red thy banner,"
Quoth Freedom to the Land,
"And when thy sons go forth to war,
This sign be in their hand!"

White— White! 'tis the sign of purity,
Of everlasting truth;
The snowy robe of childhood,
The stainless mail of youth.
Then paint with white thy banner,
And pure as northern snow
May these thy stately children
In truth and honor go.

Blue — Blue! 'tis the tint of heaven,
The morning's gold-shot arch,
The burning deeps of noontide,
The stars' unending march,
Then paint with blue thy banner,
And bid thy children raise
At daybreak, noon and eventide
Their hymn of love and praise.

All — Valor and truth and righteousness,
In threefold strength to-day
Raise high the flag triumphant,
The banner glad and gay.
"And keep thou well thy colors."
Quoth Freedom to the Land,
"And 'gainst a world of evil
Thy sons and thou shall stand."

—*Laura E. Richards.*

RECITATION

THE BIRTHDAY OF WASHINGTON EVER HONORED

Welcome, thou festal morn!
Never be passed in scorn
Thy rising sun,
Thou day forever bright
With Freedom's holy light,
That gave the world the sight
Of Washington.

Unshaken 'mid the storm,
Behold that noble form,—
That peerless one,—
With his protecting hand,
Like Freedom's angel stand,
The guardian of our land,
Our Washington.

Traced there in lines of light,
Where all pure rays unite,
Obscured by none;
Brightest on history's page,
Of any clime or age,
As chieftain, man, and sage,
Stands Washington.

Name at which tyrants pale,
And their proud legions quail,
Their boasting done;
While Freedom lifts her head,
No longer filled with dread,
Her sons to victory led
By Washington.

Now the true patriot see,
The foremost of the free,
The victory won;
In Freedom's presence bow,
While sweetly smiling now
She wreathes the spotless brow
Of Washington.

Then, with each coming year,
Whenever shall appear
That natal sun,
Will we attest the worth
Of one true man to earth,
And celebrate the birth
Of Washington.

—*George Howland.*

SONG — WASHINGTON

(From *Songs in Season*)

RECITATION — WHICH GENERAL

Sometimes mamma calls me "general";
I wish I knew which one;
But I always try to tell the truth,
So I hope it's Washington.

But when I tell my papa that,
He laughs loud as he can,
And says if she calls me "general"
She must mean Sheridan;

Because whenever she wants me,
And I am out at play,
I nearly always seem to be
'Bout "twenty miles away."

RECITATION

THE NEW GEORGE WASHINGTON

(To be recited by a small boy.)

I am six years old,
And like play and fun,
I mean to grow up
Like George Washington.
So, when mother said,
"Who ate all the pie?"
I spoke like a man,
And said, "It was I."

But she didn't say
  She'd rather lose the pie,
And know that her boy
  Would not tell a lie.
She just shut me up
  Where I couldn't see,
Then sent me to bed
  Without any tea.

MAXIMS OF WASHINGTON

(Let each pupil give one)

"Labor to keep alive in your breast that little spark of celestial fire called conscience."

"Speak not ill of the absent, it is unjust."

"A good character is the first essential in a man. It is, therefore, highly important to endeavor not only to be learned, but to be virtuous."

"I never wish to promise more than I have moral certainty of performing."

"I am resolved that no misrepresentations, falsehoods, or calumny shall make me swerve from what I conceive to be the strict line of duty."

"Associate with men of good quality if you esteem your own reputation, for it is better to be alone than in bad company."

"Commerce and industry are the best mines of a nation."

"Be courteous to all, but intimate with few; and let those be well tried before you give them your confidence."

RECITATION — I WOULD TELL

(Recitation for five boys)

First boy — I would tell of Washington
  When he was a boy like me,
He learned his lessons well at school,
And always tried to keep the rule,
And if at work, or if at play,
He did his very best each day;
Was gentle, honest, brave, and true,
And loved by all his comrades, too,
  When he was a boy like me.

Second boy — I would tell of Washington
  When he was twenty-one—
How he journeyed through the wilderness,
Ofttimes in peril and distress,
Yet never did his stout heart quail,
For he knew no such word as fail;
His dauntless courage, even then,
Showed him a leader among men,
  When he was twenty-one.

Third boy — I would tell of Washington
  In camp at Valley Forge.
When everything seemed dark and drear,
And hope had given place to fear,
He stood alone unmoved and calm;

His very presence was like balm
To soothe the suffering, rouse the faint,
He cheered each heart, stilled each complaint,
In camp at Valley Forge.

Fourth boy — I would tell of Washington
After the war was o'er.
By one accord made President,
As toward the capital he went,
The streets were decked with banners gay,
And flowers were scattered in his way;
Gathered about his path, the throng
Proclaimed him chief with shout and song,
After the war was o'er.

Fifth boy — I would tell of Washington
Where broad Potomac's water flowed,
There he took up his last abode;
Respected, honored, loved, revered,
By countless friends his days were cheered,
And when at length, drew near the end,
The nation wept to lose a friend,
So came life's peaceful close.

SONG — SELECTED

TRIBUTES TO WASHINGTON

(Let each pupil give one)

Virginia gave us this imperial man,
Cast in the massive mold
Of those high-statured ages old
Which into grander forms our metal ran;
She gave us this unblemished gentleman.
Soldier and statesman, rarest unison;
Broad-minded, higher-souled, there is but one
Who was all this and ours, and all men's—Washington.

—James Russell Lowell.

An Englishman by race and lineage, Washington incarnated in his own person and character every best trait and attribute that have made the Anglo-Saxon name a glory to its children and a terror to its enemies throughout the world. But he was not so much an Englishman that, when the time came for him to be so, he was not even more an American; and in all that he was and did, a patriot so exalted, and a leader so wise and great, that what men called him when he came to be inaugurated as the first President of the United States the civilized world has not since then ceased to call him—The Father of His Country.

—Bishop Henry C. Potter.

There is no need to argue the truism that Washington was a great man, for that is universally admitted. But it is very needful that his genius should be rightly understood, and the right understanding of it is by no means universal. His character has been exalted at the expense of his intellect, and his goodness has been so much insisted upon both by admirers and critics that we are in danger of forgetting that he had a great mind as well as high moral worth.

—Henry Cabot Lodge.

The name of Washington is intimately blended with whatever belongs most essentially to the prosperity, the liberty, the free institutions, and the renown of our country. That name was of power to rally a nation, in the hour of thick-thronging public disasters and calamities; that name shone, amid the storm of war, a beacon light to cheer and guide the country's friends; it flamed, too, like a meteor to repel her foes. That name, in the days of peace, was a loadstone, attracting to itself a whole people's confidence, a whole people's love, and the whole world's respect.

—Daniel Webster.

Of all the great men in history, Washington was the most invariably judicious. He never acted on the impulse of an absorbing or uncalculating enthusiasm, and he valued very highly fortune, position, and reputation, but at the command of duty he was ready to risk and sacrifice them all. He was, in the highest sense of the word, a gentleman and a man of honor, and he carried into public life the severest standard of private morals. *—William E. H. Lecky.*

Chieftain farewell! The nation crowns thee. Mothers shall teach thy name to their lisping children. The youth of our land shall emulate thy virtues. Statesmen shall study thy record, and learn lessons of wisdom. Mute though thy lips be, yet they still speak. Hushed is thy voice, but its echoes of liberty are ringing through the world, and the sons of bondage listen with joy.

—Bishop Matthew Simpson.

Quotations from Washington's Writings

(Let each pupil give one.)

Whatever measures have a tendency to dissolve the Union or contribute to violate or lessen the sovereign authority, ought to be considered as hostile to the liberty and independence of America, and the authors of them treated accordingly.

—From the address to the Governors of all the States on disbanding the Army, June 8, 1783.

The difference of conduct between the friends and foes of order and good government, is in nothing more striking than that the latter are always working like bees to distil their poison, whilst the former, depending oftentimes too much and too long upon the sense and good dispositions of the people to work conviction, neglect the means of effecting it.

—To Alexander Hamilton, July 29, 1795.

If laws are to be so trampled upon with impunity, and a minority is to dictate to the majority, there is an end put at one stroke to republican government, and nothing but anarchy and confusion are to be expected. Some other man or society may dislike another law and oppose it with equal propriety until all laws are prostrate and every one will carve for himself.

—From "Farewell Address to the People of the U. S.," Sept. 17, 1796.

It is indispensable to the happiness of the individual States that there should be lodged somewhere a supreme power to regulate and govern the general concerns of the confederated republic without which the Union cannot be of long duration.

—From address to the Governors of all the States on disbanding the Army, June 8, 1783.

Let us unite in imploring the Supreme Ruler of nations to spread His holy protection over these United States; to turn the machinations of the wicked to the confirming of our Constitution; to enable us at all times to root out internal sedition and put invasion to flight; to perpetuate to our country that prosperity which His goodness has already conferred; and to verify the anticipations of this government being a safeguard to human rights.

—From speech to Congress, Nov. 19, 1794.

Song Mount Vernon Bells

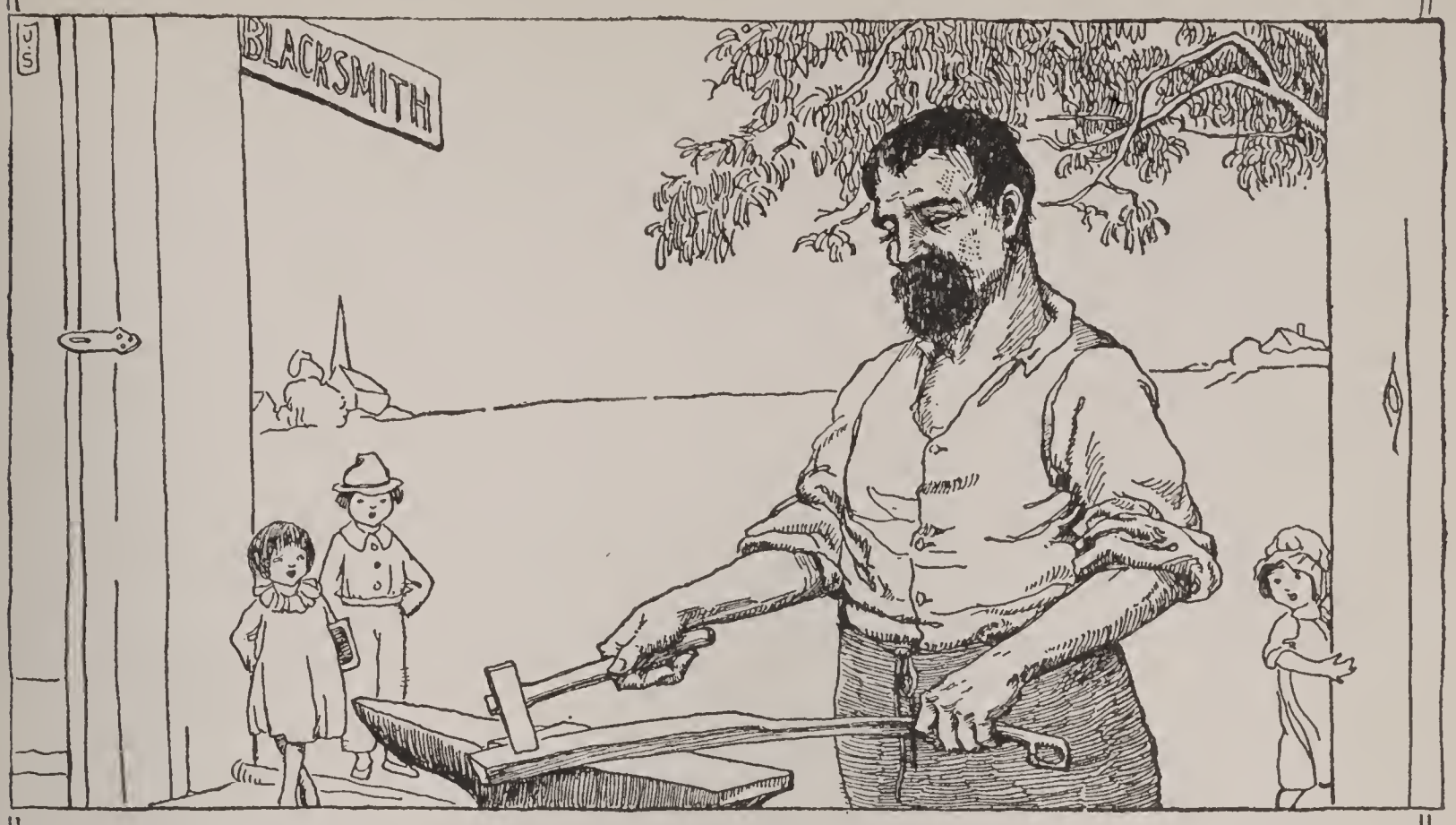
READING — EPITAPH ON WASHINGTON

(Epitah discovered on the back of a portrait of Washington, sent to the family from England.)

The defender of his country,—the founder of liberty,
The friend of man,
History and tradition are explored in vain
For a parallel to his character.
In the annals of modern greatness
He stands alone;
And the noblest names of antiquity
Lose their lustre in his presence.
Born the benefactor of mankind,
He united all the greatness necessary
To an illustrious career.
Nature made him great,
He made himself virtuous.
Called by his Country to the defense of her Liberties,
He triumphantly vindicated the rights of humanity,
And, on the pillars of National Independence,
Laid the foundation of a great Republic.

Twice invested with Supreme Magistracy
By the unanimous vote of a free people,
He surpassed, in the Cabinet,
The glories of the field,
And, voluntarily resigning the scepter and the sword,
Retired to the shades of private life;
A spectacle so new, and so sublime,
Was contemplated with profoundest admiration,
And the name of Washington,
Adding new lustre to humanity,
Resounded to the remotest regions of the earth.
Magnanimous in youth,
Glorious through life,
Great in death;
His highest ambition, the happiness of mankind;
His noblest victory, the conquest of himself.
Bequeathing to posterity the inheritance of his fame,
And building his monument in the hearts of his Countrymen,—
He lived—the ornament of the Eighteenth Century;
He died, regretted by a mourning world.

SONG — THE STAR-SPANGLED BANNER



LONGFELLOW'S BIRTHDAY

February 27.

Opening Song ..... Selected
By the School

The Boyhood of Longfellow
By one of the Pupils

Song ..... The Day is Done
Recitation ..... The Village Blacksmith
Recitation ..... The Builders
Song ..... Selected
Reading ..... Hiawatha's Wooing
Song ..... Selected
Recitation ..... The Old Clock on the Stairs
Reading ..... The Bell of Atri
Recitation ..... Excelsior

Quotations from Longfellow's Poems
One by each Pupil

Reading ..... The Legend Beautiful
Recitation ..... A Psalm of Life
Closing Song ..... Selected
By the School

LONGFELLOW'S BIRTHDAY

February 27.

PREPARATION. The influence of literature on character is lasting, and the pupils of our public schools should become acquainted with the works of the great American and English writers. It is not essential that an author program be given on the author's birthday, for the chief purpose of the program is to impress the character and ideals of the writer upon the pupils. The day is relatively unimportant, therefore the Longfellow program can be given in March since February has a number of special days requiring the attention of the school.

The only special decoration necessary is a portrait of the author, which should be draped with flags or bunting. Pictures of the Longfellow House at Cambridge, and the Falls of Minnehaha are also interesting and appropriate.

Material for a sketch of Longfellow's life will be found in the article, LONGFELLOW, HENRY WADSWORTH, in the *Standard Reference Work.*

This program should be considered a typical author program. With such slight changes as the works of the author studied may make necessary, the plan can be applied to the study of any author. Bryant, Emerson, Holmes, Lowell, and Whittier should each be studied in this way during the year. If time permits, Hawthorne and authors of less note, may profitably be added to the list.

OPENING SONG — SELECTED

THE BOYHOOD OF LONGFELLOW

(By one of the pupils.)

RECITATION — THE CHILDREN'S HOUR

(VOL. IX, PAGE 104)

THE LATER LIFE OF LONGFELLOW

(By the teacher or one of the pupils.)

SONG — THE DAY IS DONE

RECITATION — THE VILLAGE BLACKSMITH

Under a spreading chestnut tree
The village smithy stands;
The smith, a mighty man is he,
With large and sinewy hands;
And the muscles of his brawny arms
Are strong as iron bands.

His hair is crisp, and black, and long,
His face is like the tan;
His brow is wet with honest sweat,
He earns what'er he can,
And looks the whole world in the face,
For he owes not any man.

Week in, week out, from morn till night,
You can hear his bellows blow;
You can hear him swing his heavy sledge,
With measured beat and slow,
Like a sexton ringing the village bell,
When the evening sun is low.

And children coming home from school
Look in at the open door;
They love to see the flaming forge,
And hear the bellows roar,
And catch the burning sparks that fly
Like chaff from a threshing floor.

He goes on Sunday to the church,
And sits among his boys;
He hears the parson pray and preach,
He hears his daughter's voice,
Singing in the village choir,
And it makes his heart rejoice.

It sounds to him like her mother's voice,
Singing in Paradise!
He needs must think of her once more,
How in the grave she lies;
And with his hard, rough hand he wipes
A tear out of his eyes.

RECITATION

CHANGED

FROM the outskirts of the town,
Where of old the mile-stone stood,
Now a stranger, looking down,
I behold the shadowy crown
Of the dark and haunted wood.

Is it changed, or am I changed?
Ah! the oaks are fresh and green,
But the friends with whom I ranged
Through their thickets are estranged
By the years that intervene.

Bright as ever flows the sea,
Bright as ever shines the sun,
But alas! they seem to me
Not the sun that used to be,
Not the tides that used to run.

READING — HIAWATHA'S WOOING

(VOL. IX, PAGE 109)

SONG — SELECTED

RECITATION

THE OLD CLOCK ON THE STAIRS

Somewhat back from the village street
Stands the old-fashioned country-seat.
Across its antique portico
Tall poplar-trees their shadows throw;
And from its station in the hall
An ancient timepiece says to all,—
"Forever—never!
Never—forever!"

Half-way up the stairs it stands,
And points and beckons with its hands
From its case of massive oak,
Like a monk, who, under his cloak,
Crosses himself, and sighs, alas!
With sorrowful voice to all who pass,—
"Forever—never!
Never—forever!"

By day its voice is low and light;
But in the silent dead of nights
Distinct as a passing footstep's fall,
It echoes along the vacant hall,
Along the ceiling, along the floor,
And seems to say, at each chamber door,—
"Forever—never!
Never—forever!"

Through days of sorrow and of mirth,
Through days of death and days of birth;
Through every swift vicissitude
Of changeful time, unchanged it has stood;
And as if, like God, it all things saw,
It calmly repeats those words of awe,—
"Forever—never!
Never—forever!"

In that mansion used to be
Free-hearted Hospitality;
His great fires up the chimney roared;
The stranger feasted at his board;
But, like the skeleton at the feast,
That warning timepiece never ceased,—
"Forever—never!
Never—forever!"

There groups of merry children played,
There youths and maidens dreaming strayed;
O precious hours! O golden prime,
And affluence of love and time!
Even as a miser counts his gold,
Those hours the ancient timepiece told,—
"Forever—never!
Never—forever!"

From that chamber, clothed in white,
The bride came forth on her wedding night,
There, in that silent room below,
The dead lay in his shroud of snow;
And in the hush that followed the prayer,
Was heard the old clock on the stair,—
"Forever—never!
Never—forever!"

All are scattered now and fled,
Some are married, some are dead;
And when I ask, with throbs of pain,
"Ah! when shall they all meet again?"
As in the days long since gone by,
The ancient timepiece makes reply,—
"Forever—never!
Never—forever!"

Never here, forever there,
Where all parting, pain, and care,
And death, and time shall disappear,—
Forever there, but never here!
The horologe of Eternity
Sayeth this incessantly,—
"Forever—never!
Never—forever!"

READING — THE BELL OF ATRI

At Atri in Abruzzo, a small town
Of ancient Roman date, but scant renown,
One of those little places that have run
Half up the hill, beneath a blazing sun,
And then sat down to rest, as if to say,
"I climb no farther upward, come what may,"—
The Re Giovanni, now unknown to fame,
So many monarchs since have borne the name,
Had a great bell hung in the market-place,
Beneath a roof, projecting some small space
By way of shelter from the sun and rain.
Then rode he through the streets with all his train,
Made proclamation, that whenever wrong
Was done to any man, he should but ring
The great bell in the square, and he, the King,
Would cause the Syndic to decide thereon.
Such was the proclamation of King John.

How swift the happy days in Atri sped,
What wrongs were righted, need not here be said.
Suffice it that, as all things must decay,
The hempen rope at length was worn away,
Unravelled at the end, and, strand by strand,
Loosened and wasted in the ringer's hand,
Till one, who noted this in passing by,
Mended the rope with braids of briony,
So that the leaves and tendrils of the vine
Hung like a votive garland at a shrine.
By chance it happened that in Atri dwelt
A knight, with spur on heel and sword in belt,
Who loved to hunt the wild-boar in the woods,
Who loved his falcons with their crimson hoods,
Who loved his hounds and horses, and all sports
And prodigalities of camps and courts;—
Loved, or had loved them; for at last, grown old,
His only passion was the love of gold.

He sold his horses, sold his hawks and hounds,
Rented his vineyards and his garden-grounds,
Kept but one steed, his favorite steed of all,
To starve and shiver in a naked stall,

And day by day sat brooding in his chair,
Devising plans how best to hoard and spare.
At length his said: "What is the use or need
To keep at my own cost this lazy steed,
Eating his head off in my stables here,
When rents are low and provender is dear?
Let him go feed upon the public ways;
I want him only for the holidays."
So the old steed was turned into the heat
Of the long, lonely, silent, shadeless street;
And wandered in suburban lanes forlorn,
Barked at by dogs, and torn by brier and thorn.

One afternoon, as in that sultry clime
It is the custom in the summer time,
With bolted doors and window-shutters closed,
The inhabitants of Atri slept or dozed;
When suddenly upon their senses fell
The loud alarm of the accusing bell!
The Syndic started from his deep repose,
Turned on his couch, and listened, and then rose
And donned his robes, and with reluctant pace
Went panting forth into the market-place,
Where the great bell upon its cross-beam swung,
Reiterating with persistent tongue,
In half-articulate jargon, the old song:
"Some one hath done a wrong, hath done a wrong!"

But ere he reached the belfry's light arcade
He saw, or thought he saw, beneath its shade,
No shape of human form of woman born,
But a poor steed dejected and forlorn,
Who with uplifted head and eager eye
Was tugging at the vines of briony.
"Domeneddio!" cried the Syndic straight,
"This is the Knight of Atri's steed of state!
He calls for justice, being sore distressed,
And pleads his cause as loudly as the best."

Meanwhile from street and lane a noisy crowd
Had rolled together like a summer cloud,
And told the story of the wretched beast
In five-and-twenty different ways at least,
With much gesticulation and appeal
To heathen gods, in their excessive zeal.
The Knight was called and questioned; in reply
Did not confess the fact, did not deny;
Treated the matter as a pleasant jest,
And set at naught the Syndic and the rest,
Maintaining, in an angry undertone,
That he should do what pleased him with his own.

And thereupon the Syndic gravely read
The proclamation of the King; then said:
"Pride goeth forth on horseback grand and gay,
But cometh back on foot, and begs its way;
Fame is the fragrance of herioc deeds,
Of flowers of chivalry and not of weeds!
These are familiar proverbs; but I fear
They never yet have reached your knightly ear.
What fair renown, what honor, what repute
Can come to you from starving this poor brute?
He who serves well and speaks not, merits more
Than they who clamor loudest at the door.
Therefore the law decrees that as this steed
Served you in youth, henceforth you shall take heed
To comfort his old age, and to provide
Shelter in stall, and food and field beside."

The Knight withdrew abashed; the people all
Led home the steed in triumph to his stall.
The King heard and approved, and laughed in glee,
And cried aloud: "Right well it pleaseth me!
Church-bells at best but ring us to the door;
But go not in to mass; my bell doth more:
It cometh into court and pleads the cause
Of creatures dumb and unknown to the laws:
And this shall make, in every Christian clime,
The Bell of Atri famous for all time."

RECITATION EXCELSIOR

(VOL. IX, PAGE 98)

RECITATION

THE BUILDERS

All are architects of Fate,
  Working in these wall of Time;
Some with massive deeds and great,
  Some with ornaments of rhyme.

Nothing useless is, or low;
  Each thing in its place is best;
And what seems but idle show
    Strengthens and supports the rest.

For the structure that we raise,
  Time is with materials filled;
Our to-days and yesterdays
  Are the blocks with which we build.

Truly shape and fashion these;
  Leave no yawning gaps between;
Think not, because no man sees,
  Such things will remain unseen.

In the elder days of Art,
  Builders wrought with greatest care
Each minute and unseen part;
  For the Gods see everywhere.

Let us do our work as well,
  Both the unseen and the seen;
Make the house, where Gods may dwell,
  Beautiful, entire, and clean.

Else our lives are incomplete,
  Standing in these walls of Time,
Broken stairways, where the feet
  Stumble as they seek to climb.

Build to-day, then, strong and sure,
  With a firm and ample base;
And ascending and secure
  Shall to-morrow find its place.

Thus alone can we attain
  To those turrets, where the eye
Sees the world as one vast plan,
  And one boundless reach of sky.

Quotations from Longfellow's Poems

(One by a pupil)

(See Longfellow's biography in *Standard Reference Work.*)

Reading

The Legend Beautiful

"Hadst thou stayed, I must have fled!"
That is what the Vision said.

In his chamber all alone,
Kneeling on the floor of stone,
Prayed the Monk in deep contrition
For his sins of indecision,
Prayed for greater self-denial
In temptation and in trial;
It was noonday by the dial,
And the Monk was all alone.

Suddenly, as if it lightened,
An unwonted splendor brightened
All within him and without him
In that narrow cell of stone;
And he saw the Blessed Vision
Of our Lord, with light Elysian
Like a vesture wrapped about Him,
Like a garment round Him thrown.

Not as crucified and slain,
Not in agonies of pain,
Not with bleeding hands and feet,
Did the Monk his Master see;
But as in the village street,
In the house or harvest-field,

Halt and lame and blind He healed,
When He walked in Galilee.

In an attitude imploring,
Hands upon his bosom crossed,
Wondering, worshipping, adoring,
Knelt the Monk in rapture lost.
Lord, he thought, in heaven that reignest,
Who am I, that thus Thou deignest
To reveal Thyself to me?
Who am I, that from the centre
Of Thy glory Thou shouldst enter
This poor cell, my guest to be?

Then amid his exaltation,
Loud the convent bell appalling,
From its belfry calling, calling,
Rang through court and corridor
With persistent iteration
He had never heard before.
It was now the appointed hour
When alike in shine or shower,
Winter's cold or summer's heat,
To the convent portals came
All the blind and halt and lame,
All the beggars of the street,
For their daily dole of food
Dealt them by the brotherhood;
And their almoner was he
Who upon his bended knee,
Rapt in silent ecstasy
Of divinest self-surrender,
Saw the Vision and the Splendor.

Deep distress and hesitation
Mingled with his adoration;
Should he go or should he stay?
Should he leave the poor to wait
Hungry at the convent gate,
Till the Vision passed away?
Should he slight his radiant guest,
Slight this visitant celestial,
For a crowd of ragged, bestial
Beggars at the convent gate?
Would the Vision there remain?
Would the Vision come again?
Then a voice within his breast
Whispered, audible and clear
As if to the outward ear:
"Do thy duty; that is best;
Leave unto thy Lord the rest!"
Straightway to his feet he started,
And with longing look intent
On the Blessed Vision bent,
Slowly from his cell departed,
Slowly on his errand went.

At the gate the poor were waiting,
Looking through the iron grating,
With that terror in the eye
That is only seen in those
Who amid their wants and woes
Hear the sound of doors that close,
And of feet that pass them by;
Grown familiar with disfavor,
Grown familiar with the savor
Of the bread by which men die!
But to-day, they knew not why,
Like the gate of Paradise
Seemed the convent gate to rise,
Like a sacrament divine
Seemed to them the bread and wine.
In his heart the Monk was praying,
Thinking of the homeless poor,
What they suffer and endure;
What we see not, what we see;
And the inward voice was saying:
"Whatsoever thing thou doest
To the least of mine and lowest,
That thou doest unto me!"

Unto me! but had the Vision
Come to him in beggar's clothing,
Come a mendicant imploring,
Would he then have knelt adoring,
Or have listened with derision,
And have turned away with loathing?

Thus his conscience put the question,
Full of troublesome suggestion,
As at length, with hurried pace,
Towards his cell he turned his face,
And beheld the convent bright
With a supernatural light,
Like a luminous cloud expanding
Over floor and wall and ceiling.

But he paused with awe-struck feeling
At the threshold of his door,
For the Vision still was standing
As he left it there before,
When the convent bell appalling,
From its belfry calling, calling,

Summoned him to feed the poor.
Through the long hour intervening
It had waited his return,
And he felt his bosom burn,
Comprehending all the meaning,
When the Blessed Vision said,
"Hadst thou stayed, I must have fled!"

TRIBUTES TO LONGFELLOW
(One by a pupil.)

RECITATION — A PSALM OF LIFE

(VOL. IX, PAGE 86)

CLOSING SONG — SELECTED

ARBOR AND BIRD DAY

Song.....Arbor Day
Recitation.....Forest Song

Suggestions on Planting Trees
(Each by a different pupil)

Recitation.....The Tree I Will Plant

By Five Little Girls

Song ..... Selected
Recitation.....What Do We Plant When We Plant a Tree?
Recitation.....How the Tiny Acorn Grew
Song .....Pussy Willows
Reading.....The Wood Nymph's Mirror
Recitation .....The Arch of Elms
Recitation.....Were There No Trees
Recitation.....How the Violets Come
Song ..... Tree Planting
Reading.....What the Birds Mean to Us
Recitation.....The Return of the Birds
Recitation.....The Breath of Spring
Recitation.....The Lark
Song, ... Selected
Reading.....What Birds Eat
Recitation.....The Boy Who Never Sees
Song.....The Skylark
Reading.....The Nest in the Old Green Tree
Recitation.....To a Waterfowl
Closing Song.....O Painter of Fruits and Flowers

ARBOR AND BIRD DAY

PREPARATION. There is no national Arbor or Bird Day, but the department of public instruction in each state appoints a day for its state, and usually sends circulars to all teachers urging its observation. The day always comes in the spring, but it is usually earlier in the South than in the North because spring comes earlier in the South.

This is one of our most important special days, and it should be celebrated each year. The lessons to be emphasized are the value of forests and necessity for their care, and the value and care of birds. Whenever it is practicable, the pupils should plant a tree on the school grounds, or at home in commemoration of the day. The story of Arbor Day should be told by the teacher or by one of the older pupils.

Material for this story will be found in the following articles: in the *Standard Reference Work, Arbor Day, Forest Service, Forestry, The Study of the Pine,* Vol. IX, page 370.

Suggestions. If the exercises are held in the schoolroom, flowers, flags and bunting are suitable decorations. Canary birds in their cages tend to give a realistic touch to the room. Landscape scenes and pictures of wild life are appropriate. Often the exercises may be held in the school yard, or in a nearby grove.

SONG — ARBOR DAY

(Tune, *Coming Through the Rye*)

Oh, we are all very happy,
For 'tis Arbor Day!
The birds are looking for shelter,
And they've come to stay.
Up among the tall green branches
Wee nests they will make,
And they'll sing of happy springtime
While the flowers awake.

We will sing a song of welcome
Upon Arbor Day;
Safe then in their leafy shelter
Birds will swing and sway.
Of the green trees and the flowers
We all love to sing,
And a nest each bird is building
In the early spring.

Won't you plant a tree, dear children,
Upon Arbor Day?
Many a traveler'll seek the cool shade
Pausing on his way;
All the little birds are singing,
"Plant one, if you please!"
For the children can be useful
Planting little trees.

RECITATION — FOREST SONG

A song for the beautiful trees,
A song for the forest grand,
The pride of His centuries,
The garden of God's own hand
Hurrah for the kingly oak,
The maple, the forest queen,
The lords of the emerald cloak,
The ladies in living green.

For the beautiful trees a song,
The peers of a glorious realm,
So brave, and majestic, and strong,
The linden, the ash, and the elm.
Hurrah for the beech tree trim,
The hickory staunch at core,
The locust so thorny and grim,
And the silvery sycamore.

So long as the rivers flow,
So long as the mountains rise,
And shelter the earth below,
May the forest sing to the skies.
Hurrah! for the beautiful trees,
Hurrah! for the forest grand,
The pride of His centuries,
The garden of God's own hand.

—*Prof. W. H. Venable.*

Suggestions on Planting Trees
(One by each pupil.)

1. Trees are best when nursery grown.
2. Trees planted from the woods should be seedlings.
3. A tree two inches in diameter measured one foot from the ground is large enough.
4. Trees should have a compact root system, straight main trunk and well balanced top.
5. The lower branches should be trimmed to a height of seven feet from the ground.
6. Trees should be free from fungus and insect diseases.
7. Tree holes should be larger than required by the root system.
8. Trees should be planted with as large a root system as possible.
9. Prevent drying, sunburn or freezing of exposed roots.
10. Plant the tree at the same depth and exposure as it formerly stood.
11. Trim off all torn and broken roots and branches with sharp pruner before planting.
12. Plant no trees closer than twenty-five feet.
13. Arrange the roots to spread naturally in loose soil.
14. Tamp the soil well about the roots.
15. Water the young tree freely, especially during June, July and August, with one or two thorough waterings each week.
16. Keep the soil cultivated around young trees.
17. A serviceable and strong tree guard should be placed around the tree.

Recitation — **The Tree I Will Plant**

(For five little boys each reciting one stanza.)

First Boy — Oh, I will plant a maple tree,
For maple sugar is sweet,
And in the springtime of the year
We all will have a treat.

Second Boy — Oh, I will plant a willow tree,
Whose branches bending low,
Will make the nicest whistles
For little boys to blow.

Third Boy — Oh, I will plant an apple tree,
For its blossoms will be fair,
And in the happy autumn time
The apples will be there.

Fourth Boy —Oh, I will plant a poplar tree,
For when the wind goes by
It will turn up its glossy leaves
And I can hear it sigh.

Fifth Boy — Oh, I will plant a fine elm tree,
For I like that tree the best,
And many a traveler'll pause, you see,
In its cool shade to rest.

Song — **Selected**

RECITATION — WHAT DO WE PLANT WHEN WE PLANT A TREE?

What do we plant when we plant the tree?
We plant the ship which will cross the sea,
We plant the mast to carry the sails;
We plant the plank to withstand the gales,
The keel, the keelson, the beam, the knee,
We plant the ship when we plant the tree.

What do we plant when we plant the tree?
We plant the houses for you and me.
We plant the rafters, the shingles, the floors;
We plant the studding, the lath, the doors,
The beams, the siding, all parts that be;
We plant the house when we plant the tree.

What do we plant when we plant the tree?
A thousand things that we daily see:
We plant the spire that out-towers the crag,
We plant the staff for our country's flag.
We plant the shade from the hot sun free,
We plant all these when we plant the tree.

—*Henry Abbey.*

RECITATION — HOW THE TINY ACORN GREW

"Little by little," the acorn said,
As it slowly sank in its mossy bed,
"I am improving every day,
Hidden deep in the earth away."
Little by little each day it grew;
Little by little it sipped the dew;
Downward it sent out a threadlike root,
Up in the air sprung a tiny shoot.
Day after day, and year after year,
Little by little the leaves appear;
And the slender branches spread far and wide,
Till the mighty oak is the forest's pride.

"Little by little," said a thoughtful boy,
"Moment by moment I'll well employ,
Learning a little every day,
And not misspending my time in play;
And still this rule in my mind shall dwell:
'Whatever I do, I will do it well.'
Little by little I'll learn to know,
The treasured wisdom of long ago;
And one of these days, perhaps, will see
That the world will be the better for me."

SONG — PUSSY WILLOWS

RECITATION — THE WOOD NYMPH'S MIRROR

The wood nymph's mirror lies afar,
Where yellow birch and balsam are;
Where pines and hemlocks lift their spires

Against the morn and evening fires.
And where as if the stone to break,
Rock-clinging roots of tamarack take
Strange reptile shapes, whose coils are wound
The gray and lichened boulders round.

Across the face of that fair glass
No shallop ever has sought to pass
Only the white throat of the deer
Divide its surface dark and clear;
Or breast of wild fowl that from high
Blue pathway of autumnal sky,
Slant earthward their slow wearying wings
To try the coolness of its springs.
The frame that round this mirror runs
Was wrought by springtime's gentle suns
And tender rains, and these have made
A setting as of greenest jade.
In winter it may often be
A miracle in ivory.
In spring the wildwood blossoms set
Rare gems as in a coronet
Around its rim; and summer comes,
And still the bee its burden hums,
Straying in jeweled paths to shake
The flower bells for their sweetness' sake.

But of the seasons 'tis confessed
That autumn's frame is loveliest;
For then the maple's green is lost
In crimson carnage of the frost;
The year's heaped gold is hung in reach
On twigs of silver-birch and beech;
The shrubs gray-green, and gold and red,
Rival the splendors overhead,
While all between the treasures bright,
Is dusk with shadowy malachite.

—*Charles Henry Luders.*

Recitation — The Arch of Elms

At noon time on a summer day,
Two travelers walked a shady way,
Where elm trees lifted high an arch
That fiercest sunray could not parch.
Said one, "God bless the kindly hand
That set this archway cool and grand."
The other cried, "Ah, who can say
What comfort yields this leafy way!"
Better such monuments of green,
Than marble pile of king or queen.

—*Emma A. Dowd.*

RECITATION — WERE THERE NO TREES

Were there no trees upon the earth,
'Twould loose its chiefest charm for me,
And like a desert it would be;
Where life would be but little worth,
Were there no trees upon the earth.

Were there no trees upon the earth,
The birdies would not sing their song,
As now they do all summer long—
The world would miss their merry mirth,
Were there no trees upon the earth.

Were there no trees upon the earth,
Foul would the air become, and then
Extinct would grow each race of men,
And there would be of life a dearth,
Were there no trees upon the earth.

—*Susie M. Best.*

RECITATION — HOW THE VIOLETS CAME

I know—blue modest violets,
Gleaming with dew at morn—
I know the place you come from,
And the way that you were born!
When God cut holes in heaven,
The holes the stars look through,
He let the scraps fall down on earth—
The little scraps are you.

—*W. S. Faris.*

READING — FOREST HYMN

See Vol. IX, page 107.

SONG — TREE PLANTING

(Tune, *America*)

Joy for the sturdy trees,
Fanned by each fragrant breeze;
  Lovely they stand.
The song birds o'er them trill;
They shade each tinkling rill;
They crown each swelling hill.
  Lowly or grand.

Plant them by stream and way,
Plant them where children play,
  And toilers rest;
In every verdant vale,
On every sunny swale;
Whether to grow or fail
  God knoweth best.

Select the strong, the fair;
Plant them with earnest care—
  No toil is vain;
Plant in a fitter place,
Where, like a lovely face
Set in some sweeter grace,
  Change may prove gain.

God will his blessing send,
All things on Him depend—
  His loving care
Clings to each leaf and flower,
Like ivy to the tower—
His presence and His power
  Are everywhere.

—*Samuel Francis Smith.*

READING — WHAT THE BIRDS MEAN TO US

It is estimated that insects destroy nearly eight hundred million dollars worth of crops, forest trees, and live stock in the United States each year. Yet many farmers believe that the birds that feed upon these insects are more injurious than beneficial. To counteract this belief the New York *School Bulletin* published the following tribute to the birds by Mr. Elon Howard Eaton:

At this time when the juniper, the shadbush and the flowering dogwood that grow beside the country road need a special plea to save them from the axe of "Improvement;" when the gunner, who is accused of shooting a sea gull or a swallow, asks in blank amazement, "What's the use of that bird?"—it is worth while to consider the esthetic value of birds to the commonwealth. The child or the savage needs no such reminder. The graceful, feathered form, the darting flight, the flash of color, the entrancing song, are excuse enough for the birds' existence. Without them "the open" is a desolate void. What would May day be without the songs of spring? Would the pleasure of the dim forest be complete without its tapping woodpeckers, its drumming grouse and the anthem of the thrush? What are the meadows of June without their rollicking bob-o-link and the lisps of the meadowlarks; or the hillside copse without its rolling bird songs and the hidden nests with speckled eggs? Could the old hay barn have been complete without its twittering swallows, or the garden exactly like paradise if the bluebird had failed to flash his azure wing and warble his mellow love note? And a morning in the marshes, could it have such artistic finish without its gorgeous redwings, its chattering marsh wrens, its clattering rails, and the mysterious booming of its bitterns? The "haunts of coot and hern" repay us for our visit only when the inhabitants are at home. The "rapture of the lonely shore" finds its real climax with its coursing gulls and screaming sea fowl.

RECITATION — THE RETURN OF THE BIRDS

I hear, from many a little throat,
  A warble interrupted long;
I hear the robin's flute-like note,
  The bluebird's slenderer song.

Brown meadows and the russet hill,
  Not yet the haunt of grazing herds,
And thickets by the glimmering rill,
  Are all alive with birds.

Oh choir of spring, why come so soon?
  On leafless grove and herbless lawn
Warm lie the yellow beams of moon;
  Yet winter is not gone.

For frost shall sheet the pools again;
  Again the blustering East shall blow—
Whirl a white tempest through the glen
  And load the pines with snow.

Stay, then, beneath our ruder sky,
  Heed not the storm-clouds rising black;
Nor yelling winds that with them fly,
  Nor let them fright you back.—

Stay, for a tint of green shall creep
  Soon o'er the orchard's grassy floor,
And from its bed the crocus peep
  Beside the housewife's door.

Here build, and dread no harsher sound,
  To scare you from the sheltering tree,
Than winds that stir the branches round,
  And the murmur of the bee.

—*Bryant*

RECITATION THE BREATH OF SPRING

"Oh, have you felt the breath of spring?"
  Said a very little bird,
"The crocuses are blossoming.
  At least that's what I've heard!"

Oh, yes I've felt the breath of spring,
  And heard the whirr of wings,
And I am happy now because
  My favorite birdie sings!

RECITATION THE LARK

Hark! hark! to the song of the lark!
Summer is coming again;
Back to the hill-side the clean flowers are trooping,
Never a leaf or a petal drooping,
And butterflies come in their train!

Hark! hark! to the song of the lark!
All of the world is so sweet;
Up on the meadow and over the hills
Come such a host of gay daffodils,
And violets bloom at our feet.

Hark! hark! to the song of the lark!
Winging his way through the sky;
Shadows are glancing, butterflies dancing,
And white clouds go a-sailing by!

SONG SELECTED

READING WHAT BIRDS EAT

The following facts are taken from a chart prepared by Prof. F. L. Washburn, entomologist of the Minnesota Agricultural Experiment Station. The facts show which birds are helpful to the farmer.

ROSE-BREASTED GROSBEAK—Extremely fond of potato beetles, eats hairless caterpillars, gypsy moth larvae.

BLACK-BILLED CUCKOO—One of the few birds eating hairy caterpillars, devours the larvae of the brown-tailed moth and the spiny elm caterpillar.

HOUSE WREN—Ninety-eight per cent of its food composed of animal matter, insects, etc., a valuable friend in the garden.

CHIPPING SPARROW—Over twenty-five per cent of its food consists of injurious insects, plant lice, leaf-eating beetles, canker worms and caterpillars of various sorts.

DOWNY WOODPECKER—Feeds on borers, weevils, caterpillars, ants and plant lice, woolly aphis, apple worms, moths and insect eggs; a friend of the fruit grower and lumberman.

CHICKADEE—Eats eggs of tent caterpillars and canker worms, destroys codling moth and apple worm, gypsy and brown-tail moths and destroys plant lice and their eggs.

SCREECH OWL—One of the farmer's best friends, since it consumes large quantities of common mice, field mice, caterpillars, beetles, etc.

QUAIL—One of the most useful birds. Eats seeds of weeds and takes but little grain or useful berries, destroys grasshoppers, chinch bugs, army worms, potato

beetles, cucumber beetles, May beetles, wire worms, etc. Over one hundred potato beetles found in stomach of one quail.

SCARLET TANAGER—Feeds particularly on insects affecting oak trees, destroys gypsy moth.

SONG SPARROW—Fifty per cent of its food consists of seeds of weeds, also eats cabbage plant lice, cut worms, leaf hoppers, spittle insects, grasshoppers.

RECITATION — THE BOY WHO NEVER SEES

God help the boy who never sees
The butterflies, the birds, the bees,
Nor hears the music of the breeze
  When zephyrs soft are blowing.
Who cannot in sweet comfort lie
Where clover blooms are thick and high,
And hear the gentle murmur nigh
  Of brooklets softly flowing.

God help the boy who does not know
Where all the woodland berries grow,
Who never sees the forests glow
  When leaves are red and yellow,
Whose childish feet can never stray.
For such a hapless boy I say
When Nature does her charms display—
  God help the little fellow.

—*Nixon Waterman.*

SONG — THE SKYLARK

Bird of the wilderness,
  Blithesome and cumberless,
Sweet be thy matin o'er moorland and lea!
  Emblem of happiness,
  Blest is thy dwelling-place:
O to abide in the desert with thee!
  Wild is thy lay, and loud,
  Far in the downy cloud;
Love gives it energy—love gave it birth!
  Where, on thy dewy wing—
  Where art thou journeying?
Thy lay is in heaven,—thy love is on earth.

  O'er fell and fountain sheen,
  O'er moor and mountain green,
O'er the red streamer that heralds the day;
  Over the cloudlet dim,
  Over the rainbow's rim,
Musical cherub, soar, singing, away!
  Then, when the gloaming comes,
  Low, in the heather blooms,
Sweet will thy welcome and bed of love be!
  Emblem of happiness,
  Blest is thy dwelling-place—
O to abide in the desert with thee!

—*James Hogg.*

READING

THE NEST IN THE OLD GREEN TREE

Two little robins in Spring-time gay,
Talked about making a nest one day,
So snug and warm, so cosy and neat,
To start out their housekeeping all complete,
"Chippety, chippety, chippety wee,
We'll build us a nest in the old green tree."

Then how they twittered and how they sang,
As up and down in the boughs they sprang,
Peeping and spying all 'round about,
To find the cunningest corners out,
Because it must be, you see, you see,
The very best spot in the old, green tree.

At last the two little birdies spied
The very best spot in the branches wide
Cunningly sheltered, and hidden from view,
By a spreading branch, yet airy, too,
"Chippety, chippety, chippety wee,
What a home we'll have in the old, green tree."

How they went flitting all in and out!
How they both twittered and chirped about!
First they laid nice little twigs along
For a good foundation, firm and strong;
Then Papa Robin, said he, "I'll find
Something or other our nest to bind,
For don't you see, it must be, must be,
A good, strong nest in the old, green tree."

Down to the meadow he quickly flew,
Where the grass was springing fresh and new,
And said to a horse which was feeding there,
"Good Dobbin, I want some nice, strong hair,
If you don't object, from your waving tail;
It's better for me than hammer and nail,
And we'll sing you a song in glee, in glee,
As we build our nest in the old, green tree."

With a whinny, good Dobbin gave consent,
And back to the tree busy Robin went,
And worked at the nest with claws and bill,
To bind it up tight with right good will.
And now Mrs. Redbreast downward flies,
A staid old cow in the field she spies,
Swinging her tail with a lazy care,
To switch off the flies she thought were there,
"Good Mrs. Brindle I would bespeak,
Some nice, soft hair from your back, so sleek,
I pray you give it to me, to me,
To line my nest in the old, green tree."

So the saucy bird, without more ado,
Just helped herself and then upward flew,
Leaving with robin her treasure red,

And down to the barn-yard lightly sped.
The turkeys and ducks and chicks came 'round.
As soon as they heard the cheery sound,
Of madame's "chirp" and they all agreed
To give her what feathers she might need.
Then who so happy as she, as she,
When back she flew to the old, green tree?

And last of all, to old, white sheep,
Down under a beech-tree half asleep,
Our robin drew near, and there he spied
A bonnie lambkin close at her side.
"I'd thank you, ma'am for some nice, soft wool,
From your back so fleecy, white, and full,
So that our nest it may be, may be,
All snug and warm in the old, green tree."

Then, sheep and lamb in plentiful store,
Gave, till robin could carry no more,
Who, soon returning with downy spoils,
Betook himself to his happy toils.
Then both did labor so merry and fast,
That each little corner was finished at last.
And no one ever did see, did see,
A nest like that in the old, green tree.

Five little blue eggs very soon were there,
And Madame Redbreast could hardly spare
A moment, for fear that the precious things
Should miss the warmth of her sheltering wings.
And when, in good time, each dear, little bird
Hatched out, one by one, you never have heard
Such "chippety, chippety, chippety wee,"
As up in the nest in that old, green tree.

—*Sidney Dare.*

RECITATION

TO A WATERFOWL

Whither, midst falling dew,
While glow the heavens with the last steps of day,
Far, through their rosy depths, dost thou pursue
Thy solitary way?

Vainly the fowler's eye
Might mark thy distant flight to do thee wrong,
As, darkly seen against the crimson sky,
Thy figure floats along.

Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean-side?

There is a Power whose care
Teaches thy way along that pathless coast—
The desert and illimitable air—
Lone wandering, but not lost.

All day thy wings have fanned,
At that far height, the cold, thin atmosphere,
Yet stoop not, weary, to the welcome land,
Though the dark night is near.

And soon that toil shall end;
Soon shalt thou find a summer home, and rest,
And scream among thy fellows; reeds shall bend,
Soon o'er thy sheltered nest.

Thou'rt gone, the abyss of heaven
Hath swallowed up thy form; yet, on my heart
Deeply has sunk the lesson thou hast given,
And shall not soon depart.

He who, from zone to zone,
Guides through the boundless sky thy certain flight,
In the long way that I must read alone,
Will lead my steps aright.

—*Bryant.*

CLOSING SONG — Air, *Sweet Hour of Prayer*

O, painter of the fruits and flowers,
We thank thee for thy wise design,
Whereby these human hands of ours
In Nature's garden work with thine.

Give fools their gold, give knaves their power,
Let fortune's bubbles rise and fall;
Who sows a field or trains a flower
Or plants a tree, is more than all.

For he who blesses most is blest
And God and man shall own his worth,
Who toils to leave as his bequest
An added beauty to the earth.

—*Whittier.*

MOTHER'S DAY

Opening Song ..... Selected
By the School

The Story of Mother's Day
By a Pupil or the Teacher

Recitation ..... Dear Mother Love

Song ..... Mother's Hymn
By the School

Recitation ..... She Made Home Happy

Reading ..... A Mother's Love

Recitation ..... To My Mother

Recitation ..... Mother and Home

Reading ..... Beautiful Hands

Song ..... The Dearest Spot on Earth to Me

Quotations
(One by a pupil)

Reading ..... A Tribute to Motherhood

Reading ..... Rock Me to Sleep

Song ..... Home, Sweet Home

MOTHERS' DAY

Second Sunday in May

Preparation. Since Mother's Day comes on Sunday, the schools should celebrate it on the preceding Friday. The white carnation, by reason of its sweetness, purity and endurance, has been adopted as the emblem of Motherhood. Consequently, when the flowers can be procured, bouquets of white carnations should be placed about the room and the teacher and pupils should each wear a flower. If enough flowers can be obtained, each guest should also be presented with one. If a good picture of a Madonna can be obtained let it form the main feature of the decorations. Make the school room homelike with rugs and easy chairs, which doubtless nearby patrons will be willing to loan for the occasion. Make a special effort to secure the attendance of all the mothers and grandmothers in the district.

Opening Song — Selected

The Story of Mother's Day

(To be told or read by the teacher or one of the pupils.)

This story should give an account of the origin of Mother's Day. and also include the following points:

1. "The thought of a special Mother's Day in Sunday schools and churches originated with Miss Anna Jarvis, of Philadelphia, to whom the idea came when she was asked by the superintendent of the Sunday school in the Virginia town in which her deceased mother had long been the moving spirit, to arrange a memorial service.

2. "With the carrying out of this congenial and sacred duty came a realization of the growing lack of tender consideration for absent mothers among worldly-minded, busy, grown-up children—of the thoughtless neglect of home ties and of loving consideration engendered by the whirl and pressure of modern life, the lack of respect and deference to parents among children of the present generation, and of the need of a reminder of the loving, unselfish mother living or dead. And thus the Mother's Day idea came into the churches and Sunday schools, and has been expanded to include an outward demonstration of the latent love and gratitude to mothers, by a gift, words of appreciation, an act of kindness, or a letter, on the part of everybody."

On May 8, 1914, Congress, by a joint resolution, designated the second Sunday in May as Mother's Day. In this practical, worldly and selfish age, we are prone to lose sight of filial love and honor which this day seeks to renew. Let us remember the Biblical command: "Honor thy father and thy mother."

Recitation The Dear Mother Love

Mothers' arms were made for holding,
  Made for folding snug and tight,
Little forms so soft and helpless,
  Nestled there to say goodnight.

Mothers' hands were made for stroking,
  Made for soothing childish woes;
Balm of wondrous magic healing
  Through each gentle finger flows.

Mothers' lips were made for kissing,
  Made for drowning childish fears;
Smiles and kisses both together
  Stop the flow of bitter tears.

Mothers' hearts were made for loving,
  Made for love no others know.
God in Heaven! Bless and keep it
  Ever pure as whitest snow.

—*Cora Lindsey Field.*

SONG — THE MOTHER'S HYMN

Lord who ordainest for mankind
  Benignant toils and tender cares
We thank thee for the ties that bind
  The mother to the child she bears.

We thank thee for the hopes that rise
  Within her heart, as, day by day,
The dawning soul from those young eyes
  Looks with a clearer, steadier ray.

And grateful for the blessing given
  With that dear infant on her knee,
She trains the eye to look to heaven,
  The voice to lisp a prayer to thee.

Such thanks the blessed Mary gave
  When from her lap the Holy Child,
Sent from on high to seek and save
  The lost of earth looked up and smiled.

All-Gracious, grant to those who bear
  A mother's charge, the strength and light
To guide the feet that own their care
  In ways of Love and Truth and Right.

—William Cullen Bryant.

RECITATION — SHE MADE HOME HAPPY

"She made home happy"; those few words I read
Within a churchyard, written on a stone;
No name, no date, the simple words alone,
  Told me the story of the unknown dead.

A marble column lifted high its head
Close by, inscribed to one the world has known;
But ah; that lonely grave with moss o'ergrown
  Thrilled me far more than his who armies led.

"She made home happy" through the long sad years
The mother toiled and never stopped to rest,
Until they crossed her hands upon her breast,
  And closed her eyes no longer dim with tears.

The simple record that she left behind
Was grander than the soldier's to my mind.

READING — A MOTHER'S LOVE

The love of a mother is never exhausted, it never changes, it never tires. The father may turn his back on his child; brothers and sisters become inveterate enemies; husbands may desert their wives; wives their husbands; but a mother's love endures through all; in good repute, in bad repute, in the face of the world's condemnation, a mother still loves on, and still hopes that her child may turn from his evil ways and repent; still she remembers the infant smiles that once filled her bosom with raptures, the merry laugh, the joyful shout of his childhood, the opening promises of his youth; and she never can be brought to think him all unworthy.

—Washington Irving.

RECITATION — TO MY MOTHER

I do not build a monument
  Of carved white marble for your sake,
That only those who pass may read,
  And only those memorial make.

My life must be the monument
  I consecrate in your behalf;
My charity must carve your name,
  My gentleness your epitaph.

Above this record I engrave,
No drooping figure there must be;
Straight-shouldered courage, starry-eyed,
Must mark this scroll of destiny.

And may some fragments of your strength
By God's great mystery fall on me,
That through this monument of mine,
May shine your immortality.

—*Claudia Cranston.*

RECITATION MOTHER AND HOME

Mother, Home—that blest refrain
Sounds through every hastening year;
All things go, but these remain.

Held in memories jeweled chain,
Names most precious, names thrice dear;
Mother! Home!—that blest refrain.

How it sings away my pain!
How it stills my waking fear!
All things go, but these remain.

Griefs may come and sorrows wane,
E'er that melody I hear:
Mother! Home!—that blest refrain.

Tenderness in every strain,
Thoughts to worship and revere:
All things go, but these remain.

Every night you smile again,
Every day you bring me cheer;
Mother! Home!—that blest refrain;
All things go, but these remain.

—*John Jarvis Holden.*

READING (Vol. IX, page 108.) BEAUTIFUL HANDS

SONG THE DEAREST SPOT ON EARTH TO ME

QUOTATIONS
(One by each pupil)

Unhappy is the man for whom his own mother has not made all other mothers venerable.

—*Richter.*

There is in all this cold and hollow world no fount of deep, strong, deathless love, save that within a mother's heart.

—*Mrs. Hemans.*

If the whole world were put into one scale, and my mother in the other, the whole world would kick the beam.

—*Lord Langdale.*

Men are what their mothers make them.

—*R. W. Emerson.*

A mother's love—how sweet the name.
What is a mother's love?
A noble pure and tender flame,
Enkindled from above,
To bless a heart of earthly mold—
The warmest love that can grow cold:—
This is a mother's love.

—*James Montgomery.*

It's too late to let her know that he sees it.

W. D. Howells.

If you would reform the world from its errors and vices, begin by enlisting the mothers.

—*C. Simmons.*

I think it must somewheres be written that the virtues of mothers shall be visited on their children as well as the sins of the fathers.

—*Charles Dickens.*

The mother's yearning, that completest type of life within another life, which is the essence of human love, feels the presence of the cherished child, even in the base and degraded man.

—*George Eliot.*

The dignity, the grandeur, the tenderness, the everlasting and divine significance of motherhood.

—*DeWitt Talmadge.*

I would desire for a friend the son who never resisted the tears of his mother.

—*Lacretelle.*

Say to mothers what a holy charge is theirs, with what a kingly power their love might rule the fountains of the new-born mind.

—*Mrs. Sigourney.*

Oh, wondrous power! How little understood,
Entrusted to the mother's mind alone,
To fashion genius, form the soul for good,
Inspire a West, or train a Washington,

—*Mrs. Hale.*

What are Raphael's Madonnas but the shadow of a mother's love, fixed in permanent outline forever.

—*T. W. Higginson.*

No language can express the power and beauty and heroism of a mother's love. It shrinks not where man cowers, and grows stronger where man faints, and over the waste of worldly fortune sends the radiance of quenchless fidelity like a star in heaven.

—*E. H. Chapin.*

The mother's heart is the child's school room.

—*H. W. Beecher.*

SONG — SWEET AND LOW

READING — A TRIBUTE TO MOTHERHOOD

It is true to nature, although it be expressed in a figurative form, that a mother is both the morning and evening star of life. The light of her eye is always the first to rise and often the last to set upon man's day of trial. She wields a power more decisive than syllogisms in argument or courts of last appeal in authority. Nay cases not a few, where there has been no fear of God before the eyes of the young, where His love has been unfelt and His law outraged, a mother's affection or a mother's tenderness has held transgressors by the heartstrings and been the means of leading them back to virtue and to God. Woman's charms are certainly many and powerful.

The expanding rose just bursting into beauty has an irresistible bewitchingness; the blooming bride, led triumphantly to the hymeneal altar, awakens admiration and interest, and the blush of her cheeks fills with delight—but the charm of motherhood is more sublime than all these. Heaven has implanted in the mother's face something beyond this world, something which claims kindred with the skies—the angelic smile, the tender look, the waking, watchful eye which keeps its fond vigil over its slumbering babe. Mother!—ecstatic sound to twine around our hearts that they must cease to throb ere we forget it!—'tis our first love, 'tis part of our religion. Nature has set the mothers upon such a pinnacle that our infant eyes are first uplifted to it; we cling to it in manhood, we almost worship it in old age.

"Can a mother's love be supplied?" No! a thousand times no! By the deep, earnest yearning of my spirit for a mother's love; by the weary, aching void in my heart; by the restless, unsatisfied wanderings of my affections, ever seeking an

object on which to rest; by our instinctive discernment of the true maternal love from the false, as we would discern between a lifeless statue and a breathing person; by the hallowed emotions with which we cherish in the depths of our hearts the vision of a grass-grown mound in a quiet graveyard; by the reverence, by the holy love, the feeling akin to idolatry, with which our thoughts hover about an angel form among the seraphs of heaven—by all these we answer "No!" Years may pass, yet the still eye watches over us and the sweet voice whispers from her grave. Oh! what an enduring tenderness in the love of a mother that transcends all other affections of the heart.

To those of us whose mothers are buried and gone let's whisper: "Buried and gone, yet buried not, gone not from me." Let me grave a monumental line here in memory of your mother and my mother.

—*Anonymous.*

READING ROCK ME TO SLEEP

Backward, turn backward, O Time in thy flight,
Make me a child again just for tonight.
Mother come back from the echoless shore,
Take me again to your heart as of yore;
Kiss from my forehead the furrows of care,
Smooth the few silver threads out of my hair;
Over my slumbers your loving watch keep;—
Rock me to sleep, mother,—rock me to sleep.

Backward, flow backward, O tide of the years,
I am so weary of toil and of tears,—
Toil without recompense, tears all in vain,—
Take them and give me my childhood again.
I have grown weary of dust and decay,—
Weary of flinging my soul wealth away;
Weary of sowing for others to reap,—
Rock me to sleep, mother,—rock me to sleep.

Tired of the hollow, the base, the untrue,
Mother, O mother, my heart calls for you.
Many a summer the grass has grown green,
Blossomed and faded our faces between;
Yet, with strong yearning and passionate pain
Long I tonight for thy presence again.
Come from thy silence so long and so deep:—
Rock me to sleep, mother,—rock me to sleep.

Over my heart, in the days that have flown,
No love like mother love ever has shown;
No other worship abides and endures,—
Faithful, unselfish, and patient like yours:
None like a mother can charm away pain
From the sick soul and world-weary brain.
Slumber's soft charms o'er my heavy lids creep;—
Rock me to sleep, mother,—rock me to sleep.

Come, let your brown hair, just lighted with gold,
Fall on your shoulders again as of old;
Let it drop over my forehead to-night,
Shading my faint eyes away from the light;
For with its sunny edged shadows once more
Haply will throng the sweet visions of yore;
Lovingly, softly, its bright billows sweep;—
Rock me to sleep, mother,—rock me to sleep.

Mother, dear mother, the years have been long
Since last I listened your lullaby song;
Sing then, and unto my soul it shall seem
Womanhood years have been only a dream.
Clasped to your heart in a loving embrace,
With your light lashes just sweeping my face,
Never hereafter to wake or to weep;—
Rock me to sleep, mother,—rock me to sleep.

—*Elizabeth Akers.*

SONG HOME, SWEET HOME

(Vol. IX, page 124.)

MEMORIAL DAY
May 30

Opening Song ..... Memorial Day

By the School

Reading ..... The Origin of Memorial Day
Reading .....The First Memorial Day Proclamation
Recitation .....The Blue and the Gray
Recitation ..... Bringing Flowers

By Eight Primary Children

Tributes to Our Fallen Heroes
(*Each by a different pupil*)

Song ..... The Red, White and Blue
Recitation ..... Meaning of the Day
Reading ..... A National Hymn
Recitation ..... Our Flag

By Three Boys

Recitation ..... The Flag is Passing By
Song ..... Hurrah for the Flag

Tributes to the Flag
(*Each by a different pupil*)

Recitation ..... The Flag's Message
Song ..... The Star-Spangled Banner
Recitation ..... The Blue and the Gray
Closing Song ..... Tenting on the Old Camp Ground

MEMORIAL DAY

May 30

Preparation. The purpose and significance of the day should be explained by the teacher when preparation of the program is begun that the pupils may grow into the spirit of the day.

Memorial Day has now become not only a day of remembrance of our soldiers who died in defense of their country but of our departed friends and relatives. The lesson to be impressed then, is: We should pause in our work-a-day lives to dwell in memory over those who have gone before. As American citizens, we should honor the memory of those who died for their country. The flowers we place above their graves are outward expressions of the love and esteem we have for them.

While for many years we had only soldiers of the Civil War to hold in loving remembrance we now honor the memory of those American soldiers who died in the Spanish-American war and also those who died in the World War. All died in defense of our country.

Opening Song — Memorial Day

(Tune, *Just Before the Battle, Mother*)

On Memorial Day we're bringing
  All the fairest flowers that bloom,
And our sweetest songs we're singing
  As we deck the soldier's tomb;
Proudly see our royal banners,
  Waving as we march along,
And we scatter sweetest flowers
  As we sing today this song.

Chorus:
Though the battles now are ended,
  We will journey far and wide,
Scattering flowers of sweetest perfume
  For our brave, good men who died.

On Memorial Day we're waving
  Flags of red, and white, and blue.
To the memory of our great men
  We will evermore be true;
Float out, then, upon the breezes,
  Starry banner of the free!
We all love our country's heroes,
  And we sing of liberty!

Chorus.

Reading — The Origin of Memorial Day

The custom of decorating the soldier's graves originated in the South. Two years after the close of the Civil War, an article appeared in the papers giving an account of the decorating the graves of both the Union and the Confederate soldiers by the women of Columbus, Mississippi. This action touched the hearts of the people in both the South and the North which found expression in Finch's beautiful poem, *The Blue and the Gray.*

In May, 1868, Gen. John A. Logan, then commander-in-chief of the Grand Army of the Republic, recommended that the 30th day of May be set aside for the purpose of decorating the graves of those who fell in the war. He added: "It is the purpose of the Commander-in-Chief to inaugurate the observance with the hope that it will be kept up from year to year while a survivor of the war remains to honor the memory of the departed."

State legislatures have acted upon this suggestion, and the day is now a legal holiday throughout most of the Northern states. Because flowers bloom earlier in the southern part of the country, an earlier date is usually observed there. While no general day has been set aside, April 26 is observed by many of the states in that section, but others observe different dates.

READING — THE FIRST DECORATION DAY PROCLAMATION

Order issued May 5, 1868

We should guard their graves with sacred vigilance. All that the consecrated wealth and taste of the nation can add to their adornment and security is but a fitting tribute to the memory of her slain heroes. Let no wanton fool tread rudely on such hallowed grounds. Let pleasant paths invite the coming and going of reverent visitors and fond mourners. Let no vandalism or avarice or neglect, no ranges of time testify to the present or the coming generations that we have forgotten as a people the cost of a free and undivided Republic.

If other eyes grow dull and other hands slack, and other hearts cold in the solemn trust, ours shall keep it well as long as the light and warmth of life remain to us.

Let us then gather around their sacred remains and garland the passionless mounds above them with the choicest flowers of springtime; let us raise above them the dear old flag they saved from dishonor; let us in this solemn presence renew our pledges to aid and assist those whom they have left among us as a sacred charge upon a nation's gratitude—the soldier's and sailor's widow and orphan.

—*John A. Logan.*

RECITATION — THE BLUE AND THE GRAY

"Oh, mother what do they mean by blue,
And what do they mean by gray?"
Was heard from the lips of a little child,
As she bounded in from play.
The mother's eyes filled up with tears;
She turned to her darling fair,
And smoothed away from the sunny brow
Its treasures of golden hair.

"Why, mother's eyes are blue, my sweet,
And grandpa's hair is gray;
And the love we bear our darling child
Grows stronger every day."
"But what did they mean?" persisted the child:
"For I saw two cripples today;
And one of them said he fought for the blue;
The other he fought for the gray.

"They sat on the stone by the farmyard gate,
And talked for an hour or more,

Till their eyes grew bright, and their hearts seemed warm,
With fighting their battles o'er.
And parting at last with a friendly grasp,
In a kindly, brotherly way,
Each called on God to speed the time
Uniting the blue and the gray."

Then the mother thought of other days,—
Two stalwart boys from her riven;
How they knelt at her side, and, lisping, prayed,—
"Our Father, which art in heaven;"
How one wore the gray, and the other the blue;
How they passed away from sight,
And had gone to the land where gray and blue
Are merged in colors of light.

And she answered her darling with golden hair,
While her heart was sadly wrung
With the thoughts awakened in that sad hour
By her innocent, prattling tongue,—
"The blue and the gray are the colors of God;
They are seen in the sky at even;
And many a noble, gallant soul
Has found them passports to heaven."

(For eight primary children. Each child should carry flowers)

1.

Let little hands bring blossoms sweet
To brave men lying low;
Let little hearts to soldiers dead
Their love and honor show.

2.

Brings flowers to strew again
With fragrant purple rain,
Of lilacs and of roses white and red,
The dwellings of our dead, our glorious dead.

3.

Here is a lily and here is a rose,
And here a heliotrope,
And here is the woodbine sweet that grows
In the garden's sunny slope.

4.

Here is a bit of mignonette,
And here's a geranium red;
A pansy bloom and a violet
I found in a mossy bed.

5.

Here are all the flowers I love the best,
And I've brought them all to lay
With loving hands where soldiers rest
On Decoration Day.

6.
Of the Blue or the Gray, what matter today?
For each some fond heart weeps;
So, children dear, make the spot less drear
Wherever a soldier sleeps.

7.
There are lilies for the valorous,
And roses for the brave;
And laurel for the victor's crown,
And rue for lowly grave.

8.
There's crimson for the blood that flowed
That freedom might be free,
And golden for the hearts of gold
That died for you and me.

Tributes to Our Fallen Heroes

(Let each pupil give one)

We know that all over this broad land this Memorial Day has been dedicated to the beautiful custom of decorating with earth's fairest and freshest flowers the graves of the patriot men who died that we might possess in peace a united country and a government worth having. The fragrance of these flowers rising to heaven from such altars can not but prove an acceptable peace-offering at the throne of Him who holds in his hands the destiny of all people.

—W. T. Sherman.

They sleep under the solemn pines, the sad hemlock, the tearful willow, and the embracing vine. They sleep beneath the shadows of the clouds, careless alike of the sunshine or storm, each in his windowless place of rest. Earth may run red with other wars—they are at peace. In the midst of battle, in the roar of the conflict, they found the serenity of death. I have one sentiment for the soldiers living and dead—cheers for the living, tears for the dead.

—Adapted from Robert G. Ingersoll.

Every mountain and hill shall have its treasured name; every river shall keep some solemn title; every valley and every lake shall cherish its honored register; and till the mountains are worn down, and the rivers forget to flow; till the clouds are weary of replenishing springs, and the springs forget to gush and the rills to sing shall their names be kept fresh with reverent honors which are inscribed upon the book of National Remembrances.

—Henry Ward Beecher.

Song The Red, White and Blue

Recitation Meaning of the Day

Do you know what it means
You boys and girls
Who hail from the north
And from the South?
Do you know what it means
This twining of greens
Round the silent canon's mouth?
This strewing with flowers the grass-grown grave;
This decking with garlands the statues brave?

This planting of flags
All in tatters and rags;
This marching and singing;
These bells all a-ringing;
These faces grave and these faces gay;
This talk of the blue and this talk of the gray
In the north and the south, Memorial Day?

Not simply a show-time, boys and girls,
Is this day of falling flowers;
Not a pageant or play,
Nor a holiday
Of flags and floral bowers;
It is something more than a day that starts
War memories a-throb in veteran hearts.

For across the years,
To the hopes and the fears,
To the days of battle,
Of roar and rattle—
To the past that now seems so far away
Do the sons of the blue and the sons of the gray
Gaze—hand clasping hand—Memorial Day.

For the wreck and the wrong of it, boys and girls,
For the terror and loss as well,
Our hearts must hold
A regret untold
As we think of those who fell;
But their blood, on whichever side they fought,
Remade the nation, and progress wrought.

We forget the woe,
For we live and know
That the fighting and sighing,
The falling and dying,
Were but steps toward the future—the martyr's way!
Adown which the sons of the blue and the gray
Look, with love and with pride, Memorial Day.

READING — A NATIONAL HYMN

Hail, Freedom! Thy bright crest
And gleaming shield, thrice blest,
  Mirror the glories of a world thine own:
Hail, heaven-born Peace! Our sight,
Led by thy gentle light,
  Shows us thy paths with deathless flowers strewn.
Peace, daughter of a strife sublime,
Abide with us till strife be lost in endless time.
In radiance heavenly fair
Floats on the peaceful air
  That flag that never stooped from victory's pride;
Those stars that softly gleam,
Those stripes that o'er us stream,
  In war's grand agony were sanctified;
A holy standard, pure and free,
To light the home of peace, or blaze in victory.

Father, whose mighty power
Shields us through life's short hour,
  To thee we pray: Bless us and keep us free;
All that is past forgive,
Teach us henceforth to live,
  That through our country we may honor Thee;
And when this mortal life shall cease
Take Thou at last our souls to Thine eternal peace.
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Teach us henceforth to live,
  That through our country we may honor Thee;
And when this mortal life shall cease
Take Thou at last our souls to Thine eternal peace.

—*F. Marion Crawford.*

RECITATION — OUR FLAG

(Exercise for three boys; each carrying a flag and pointing to it as he speaks.)

1.

It's hues are all of heaven—
  The red of sun set's dye,
The whiteness of the moonlit cloud,
  The blue of morning's sky.

2.

For every star in its field of blue,
For every stripe of stainless hue,
Ten thousand of the tried and true
Have lain them down and died.

3.

Behold, its streaming rays unite,
One mingling flood of braided light;
The red that fires the southern rose
With spotless white of nothern snows.

RECITATION — THE FLAG IS PASSING BY

Hats off!
Along the street there comes
A blare of bugles, a ruffle of drums,
A flash of color beneath the sky.
Hats off!
The flag is passing by.

Blue and crimson and white it shines,
Over the steel tipped ordered lines.
Hats off!
The colors before us fly,
But more than the flag is passing by.

Hats off!
Along the street there comes
A blare of bugles, a ruffle of drums,
And loyal hearts are beating high.
Hats off!
The flag is passing by.

—*Henry Holcomb Bennett.*

SONG — HURRAH FOR THE FLAG

There are many flags in many lands,
There are flags of ev'ry hue;
But there is no flag, however grand,
Like our own "Red, White and Blue."

Chorus.
Then hurrah for the flag!
Our country's flag,
Its stripes and white stars too;
There is no flag in any land,
Like our own "Red, White and Blue."

I know where the prettiest colors are,
And I'm sure if I only knew How to get them here,
I could make a flag,
Of glorious "Red, White and Blue."

Chorus.
I would cut a piece from an evening sky,
Where the stars were shining thro'
And use it just as was it on high,
For my stars and my field of Blue.

Chorus.
Then I'd want a part of a fleecy cloud,
And some red from a rain-bow bright,
And put them to-geth-er side by side,
For my stripes of Red and White.

Chorus.
We shall always love the stars and stripes,
And we mean to be ever true
To this land of ours, and the dear old flag,
The "Red and White and Blue."

Chorus.

TRIBUTES TO THE FLAG
(One by each pupil.)

Its hues are all of heaven—
The red of sun set's dye,
The whiteness of the moonlit cloud,
The blue of morning's sky.

Stand by the flag, all doubt and danger scorning!
Believe, with courage firm and faith sublime,
That it shall float until eternal morning,
Pale in its glows, all the light of time.

Flag of the free heart's hope and home,
By angel hands to valor given!
Thy stars have lit the welkin dome,
And all thy hues were born in heaven.

Flag of the fearless hearted,
  Flag of the broken chain,
Flag in the day-dawn started,
  Never to pale or wane.
Dearly we prize its colors,
  With the heaven light breaking through,
The clustered stars, the steadfast bars,
  The red, the white, and the blue.

Flag of the sturdy fathers,
  Flag of the royal sons,
Beneath its folds, it gathers
  Earth's best and noblest ones.
Boldly we wore its colors,
  Our veins are thrilled anew
By the steadfast bars, the clustered stars,
  The red, the white, and the blue.

—*Margaret Sangster.*

Every color means liberty.
  Every thread means liberty.
Every form of star or stripe of light means
  liberty—organized, instituted liberty—
liberty through laws and laws for liberty. It
  is a whole national history.

—*Henry Ward Beecher.*

RECITATION THE FLAG'S MESSAGE

I swing before your eyes as a bright gleam of color, a symbol of yourself, the pictured suggestion of that big thing which makes this nation. My stars and my stripes are your dreams and your labors. They are bright with cheer, brilliant with courage, firm with faith because you have made them so out of your hearts, for you are the makers of the flag and it is well that you glory in the making.

—*Franklin K. Lane.*

SONG THE STAR-SPANGLED BANNER

RECITATION THE BLUE AND THE GRAY

By the flow of the inland river,
  Whence the flects of iron have fled,
Where the blades of the grave-grass
    quiver,
  Asleep are the ranks of the dead;
Under the sod and the dew,
  Waiting the judgment day—
Under the one the blue;
  Under the other the gray.

These in the robings of glory,
  Those in the gloom of defeat,
All, with the battle-blood gory,
  In the dusk of eternity meet;
Under the sod and the dew,
  Waiting the judgment day—
Under the laurel the blue;
  Under the willow the gray.

From the silence of sorrowful hours
  The desolate mourners go,
Lovingly laden with flowers
  Alike for the friend and the foe;
Under the sod and the dew,
  Waiting the judgment day—
Under the roses the blue;
  Under the lilies the gray.

So with an equal splendor
  The morning sun-rays fall,
With a touch impartially tender,
  On the blossoms blooming for all;
Under the sod and the dew,
  Waiting the judgment day—
'Broidered with gold the blue;
  Mellowed with gold the gray.

So when the summer calleth,
  On forest and field of grain
With an equal murmur falleth
  The cooling drip of the rain;
Under the sod and the dew,
  Waiting the judgment day—
Wet with the rain the blue;
  Wet with the rain the gray.
Sadly, but not with upbraiding,
  The generous deed was done;
In the storm of the years that are fading
  No braver battle was won;
Under the sod and the dew,
  Waiting the judgment day—
Unler the blossoms the blue;
  Under the garlands the gray.

No more shall the war cry sever
  Or the winding rivers be red;
They banish our anger forever
  When they laurel the graves of our dead!
Under the sod and the dew,
  Waiting the judgment day—
Love and tears for the blue,
  Tears and love for the gray.

—*Francis M. Finch.*

SONG

TENTING ON THE OLD CAMP GROUND

We're tenting tonight on the old camp ground;
  Give us a song to cheer
Our weary hearts; a song of home
  And friends we love so dear.

Chorus.—Many are the hearts that are weary tonight,
  Wishing for the war to cease;
Many are the hearts looking for the right,
  To see the dawn of peace;
Tenting tonight, tenting tonight,
  Tenting on the old camp ground.

We've been tenting tonight on the old camp ground,
  Thinking of days gone by,
Of loved ones at home who gave us the hand
  And the tear that said good-bye.—Chorus.

We're tired of the war on the old camp ground;
  Many are dead and gone
Of the brave and true who have left their homes;
  Others been wounded long.—Chorus.

We've been fighting today on the old camp ground
  Many are lying near;
Some are dead and some are dying,
  Many are in tears.—Chorus.

CLOSING DAY

Opening Song ..... Selected
Recitation ..... The Time for Fun
Recitation ..... Happy Days
Recitation ..... The Song of the Rain
Song ..... Selected
Reading ..... Early Rising
Recitation ..... June
Recitation ..... If I Knew

Memory Gems

Each pupil to repeat one of the memory gems learned during the year.

Song ..... Selected
Recitation ..... Small Beginnings
Recitation ..... The Farmer Boy
Recitation ..... Opportunity
Song ..... Selected
Recitation ..... Love of Country
Recitation ..... God Save the Flag
Recitation ..... The Chambered Nautilus
Recitation ..... Vacation Time
Closing Song ..... America

CLOSING DAY

PREPARATION. Closing Day should form the climax of the term's or year's work and in preparing the program both parents and pupils should be considered. Each pupil's work, so arranged as to show his progress during the term, should be placed on exhibition, but no special show work should be prepared for the exhibit.

If home projects have been undertaken in connection with the school work, the work accomplished through such endeavor should also form a part of the exhibit.

The decorations will usually consist of flowers, grains and grasses, flags, pictures and the school exhibit. Usually it will be well to devote the entire day to the program. Use the forenoon for examination of the exhibits and a discussion of the work done and plans for the future. Have a picnic dinner and devote the afternoon to the special program. The songs for this program should be selected from those learned during the year. A brief talk—not to exceed ten minutes—by one of the school officials or someone else in the community, if the right one can be secured, will form an appropriate feature of the program.

Closing Day should be a day of achievement and hope. As the pupils and parents review the work of the term, they should look forward to the next term with broader plans for the school and the community.

OPENING SONG — SELECTED

RECITATION — THE TIME FOR FUN

Vacation time is the time for fun;
A fishing we will go.
I know where flows a little stream
With willows bending low.

Vacation time is the time for fun;
Oh, how I love it all,
With apple blossoms in the spring
And ripe fruits in the fall.

Vacation time is the time for fun;
Oh, may it slowly pass—
I love to run about,
Barefooted, in the grass.

RECITATION — HAPPY DAYS

Oh, happy days of June,
With your skies so bright and clear;
We will welcome you with singing,
For vacation time is here.

Oh, happy days of June,
If you bring to us some showers
We will all be happy still,
For the sake of thirsty flowers

RECITATION — JUNE

(By a little girl with a wreath of roses)

June is like a little lassie
  With her flowers fair,
And a wreath of sweet, red roses
  She wears in her hair.

June is like a little lassie
  Dwelling in green bowers;
She comes tripping o'er the meadow
  Scattering the flowers!

June is like a little lassie,
  And she calls, "Come, play!"
Oh, sweet June, we bid you welcome
  On our glad holiday.

RECITATION — IF I KNEW

If I knew the box where the smiles are kept,
  No matter how large the key
Or strong the bolt, I would try so hard
  'Twould open, I know, for me;
Then over the land and the sea broadcast,
  I'd scatter the smiles to play,
That the children's faces might hold them fast
  For many and many a day.

If I knew a box that was large enough
  To hold all the frowns I meet,
I would like to gather them, every one,
  From nursery, school and street;
Then folding and holding, I'd pack them in,
  And turning the monster key,
I'd hire a giant to drop the box
  To the depths of the deep, deep sea.

—*Maud Wyman.*

RECITATION — THE SONG OF THE RAIN

The song of the rain, the song of the rain,
Has cheered me over and over again;
I go to my little room in the dark,
And I am all alone; but hark!
I listen, and hear the song, song of the rain
As it splashes upon the window-pane.

I close my eyes, for I'm tired, and then
I hear the rain's sweet song again.
"I water the thirsty earth, you see,
The flowers hold out their cups for me;
I am hurrying on to find a stream,
But I leave with you, little boy, a dream!"

Then I see a rainbow over the hill,
And Bo-Peep calling her white sheep still!
And I see a little white-sailed boat
On the rippling, sparkling streams afloat.
Then I hear the rain-song as before,
"Little boy, you must go home once more!"

Then I sail, and sail, and sail away,
And I open my eyes and find it is day.
And no one dreams I've been out all night,
For the sun is shining so warm and bright.
But in my heart there's a sweet refrain,
'Tis the song of the rain, the song of the rain!

SONG — SELECTED

READING — EARLY RISING

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MEMORY GEMS

Let each pupil repeat one of the memory gems learned during the year.

SONG — SELECTED

RECITATION — SMALL BEGINNINGS

A traveller through a dusty road strewed acorns on the lea
And one took root and sprouted up, and grew into a tree.
Love sought its shade, at evening time, to breathe its early vows;
And age was pleased, in heat of noon, to bask beneath its boughs;
The dormouse loved its dangling twigs, the birds sweet music bore;
It stood a glory in its place, a blessing evermore.

A little spring had lost its way amid the grass and fern,
A passing stranger scooped a well, where weary men might turn;
He walled it in, and hung with care a ladle at the brink;
He thought not of the deed he did, but judged that Toil might drink.
He passed again, and lo! the well, by summers never dried,
Had cooled ten thousand parching tongues, and saved a life beside.

A dreamer dropped a random thought; 'twas old, and yet 'twas new;
A simple fancy of the brain, but strong in being true.
It shone upon a genial mind, and lo! its light became

A lamp of life, a beacon ray, a monitory flame.
The thought was small; its issue great; a watchfire on the hill,
It sheds its radiance far adown, and cheers the valley still!

A nameless man, amid a crowd that thronged the daily mart,
Let fall a word of Hope and Love, unstudied, from the heart;
A whisper on the tumult thrown,—a transitory breath,—
It raised a brother from the dust; it saved a soul from death.
O germ! O fount! O word of love! O thought at random cast!
Ye were but little at the first, but mighty at the last.

—*Charles Mackay.*

RECITATION — BE TRUE

Thou must be true thyself
If thou the truth wouldst teach;
Thy soul must overflow, if thou
Another soul wouldst reach.
It needs the overflow of heart
To give the lips full speech.

Think truly, and thy thoughts
Shall the world's famine feed;
Speak truly, and each word of thine
Shall be a fruitful seed;
Live truly, and thy life shall be
A great and noble creed.

ADDRESS — BY A PATRON OF THE SCHOOL

(Not to exceed ten minutes)

RECITATION — THE FARMER BOY

My brother says when he's a man
He'll be a merchant if he can.
My cousin says he'll sail the sea,
But a farmer's life is the life for me!
And what care I for summer heat,
For all the world is fresh and sweet,
And life is just brimful of joy
For the happy-hearted farmer boy!

RECITATION — OPPORTUNITY

Master of human destinies am I!
Fame, love, and fortune on my footsteps wait.
Cities and fields I walk; I penetrate
Deserts and seas remote, and passing by
Hovel and mart and palace—soon or late
I knock unbidden once at every gate!

If sleeping, wake—if feasting, rise before
I turn away. It is the hour of fate,
And they who follow me reach every state
Mortals desire, and conquer every foe

Save death; but those who doubt or hesitate,
Condemned to failure, penury, and woe,
Seek me in vain and uselessly implore,
I answer not, and I return no more!

—*John James Ingalls.*

SONG — SELECTED

RECITATION — LOVE OF COUNTRY

Breathes there the man with soul so dead,
Who never to himself hath said,
  This is my own, my native land?
Whose heart hath ne'er within him burned,
As home his footsteps he had turned
  From wandering on a foreign strand?

If such there breathe, go mark him well!
For him no minstrel raptures swell;
High though his titles, proud his name,
Boundless his wealth as wish can claim,—
Despite those titles, power, and pelf,
The wretch, concentered all in self,
Living, shall forfeit fair renown,
And, doubly dying, shall go down
To the vile dust, from whence he sprung,
Unwept, unhonored, and unsung.

—*Sir Walter Scott*

RECITATION — GOD SAVE THE FLAG

Washed in the blood of the brave and the blooming,
  Snatched from the altars of insolent foes,
Burning with star-fires, but never consuming,
  Flash its broad ribbons of lily and rose.

Vainly the prophéts of Baal would rend it,
  Vainly his worshipers pray for its fall;
Thousands have died for it, millions defend it,
  Emblem of justice and mercy to all.

Justice that reddens the sky with her terrors,
  Mercy that comes with her white-handed train,
Soothing all passions, redeeming all errors,
  Sheathing the sabre and breaking the chain.

Borne on the deluge of old usurpations,
  Drifted our Ark o'er the desolate seas,
Bearing the rainbow of hope to the nations,
  Torn from the storm-cloud and flung to the breeze!

God bless the Flag and its loyal defenders,
  While its broad folds o'er the battle-field wave,
Till the dim star-wreath rekindle its splendors,
  Washed from its stains in the blood of the brave!

—*Oliver Wendell Holmes.*

RECITATION — THE CHAMBERED NAUTILUS

VOL. IX, PAGE 117.

RECITATION

VACATION TIME

I hear the cow-bells calling low,
  Vacation time! vacation time!
And to the pasture I will go
  In glad vacation time.
I love to see the old cows eat
The rich, red clover at their feet;
I always think this quite a treat;
  In glad vacation time.

I hear the thrushes when they call,
  Vacation time! vacation time!
I know the birds, I love them all,
  In glad vacation time.
I go out to the garden swing,
And then it is the sweetest thing,
I always hear them chirp and sing,
  In glad vacation time.

CLOSING SONG — AMERICA

PROJECTS AND TYPE STUDIES

The school project as a method of teaching presents the following advantages:

1. It trains the powers of observation.
2. It affords the best means for training in both oral and written language.
3. "It organizes and uses knowledge on the basis of a definite purpose."
4. It is objective and practical, not vague and theoretical.
5. It leads the pupil to correlate all subjects in the course of study around a central unit.
6. It enables the pupil to join practical knowledge which serves to introduce and explain other kindred projects.

CLASSES OF PROJECTS. There are two classes of projects—those undertaken by the child of his own volition, and those given him by others.

There is a close and necessary connection between the self-chosen projects of the child's small world and the large projects of the life beyond. Children should be induced to work out as many of these self-chosen projects as may be feasible in order that they may take a problem-solving attitude with respect to the larger and more complex problems whose solution may be thought out.

Most of the plays in which children engage are organized as projects; that is, all the child's activities are centered in a definite purpose, such as making a kite, dressing a doll or winning a game of ball. By leading the child similarly to organize his activities around given units in the course of study, he is given the opportunity to work to a definite purpose. This helps him to realize the practical side of school subjects and also increases his interest in his work.

PROJECTS AS TYPE STUDIES. The project is the most desirable form of type study.

The chief difference between the formal type study and the project lies in the plannig of the work. In the formal type study the plan is prepared by the teacher or taken from a book, and the pupils follow the plan. In the project the plan unfolds as the work proceeds, and should be suggested by the pupils. In the project the pupils enjoy the pleasure of creating their own plans, which they eagerly follow. Careful planning on the part of the teacher will usually prevent the formation of plans that are impracticable, but should this occur occasionally, the resulting failure will teach the pupils to be more careful in the future. An occasional failure of this sort should not discourage the pupils or the teacher. However, the wise teacher will so plan her work that it will lead the pupils to choose the projects in their logical order.

Volumes Nine and Ten of the STANDARD REFERENCE WORK contain a wealth of material for project work in all branches of the common school course. Special attention is called to the chapters on geography, biography, history and civil government. The chapter, *Special Days,* will also give many helpful suggestions. The plans for teaching phonics and other phases of formal language work show how to introduce drills where they are needed, and the arithmetic work shows how drills in number processes can be used in connection with any project units in which number is included.

NAME OF PROJECT	READING	ENGLISH: FORMAL LANGUAGE, SPELLING
Burgoyne's Campaign	History of the Revelutionary War; geography of the locality, from **Standard Reference Work.** Bennington; Saratoga; Burgoyne; Gates; Schuyler; Arnold.	Study of nouns; capitals; punctuation; spelling.
The Birds of Killingworth	The poem; stories of birds; articles in **Standard Reference Work:** Caedmon; Edwards; Herod; St. Bartholomew, etc.	Introduction of new words; *singular and plurals of possessives; spelling.
The Great Lakes	Geography and history of the region; descriptions of the industries. See page 369.	*Study of verbs; spelling; writing.
School Newspaper	Newspapers and magazines	*Punctuation; *use of irregular verbs; study of the paragraph.
Coal	Accounts of formation of coal; mining; varieties of coal; transportaton; uses.	*Use of adjectives; use of pronouns; spelling; use of comma in series.

*Drill exercises.

The chart gives, in outline, suggestions which will be found helpful in organizing this and other material for projects. It shows how many of the formal drills, which are usually so irksome to pupils, may be made concrete and interesting by attaching them to some live topic. It also shows the value of the project as a means for correlating the various branches in the course of study.

KING OF THE GOLDEN RIVER

See Volume IX, Page 244

This may be used as a reading project, and it furnishes excellent material for morning exercises.

Nature study, literature, language and character building—all receive a strong stimulus through the story.

In the reading all familiar terms should be explained.

Spend a few minutes each morning in questioning the pupils on the portion of the story read the preceeding morning. The following scheme may be used as a guide to the questions:

I. Imaginary picture of the valley. In what direction did the river flow? Why called Treasure Valley?

II. Mental picture of Hans and Schwartz. Why called the Black Brothers? Mental picture of Gluck. How old was Gluck?

III. Southwest Wind Esq.

1. Picture of Gluck roasting the mutton.
2. Picture of the Old Man.
3. What was the object of the Old Man's visit?
4. What happened to Hans and Schwartz?

Describe the Old Man's second visit. Who was he?

IV. The ruined valley, How was the change caused?

V. The goldsmiths.

I. The King of the Golden River.

COMPOSITION ORAL	COMPOSITION WRITTEN	APPLICATION	CORRELATED SUBJECTS
Oral description of the account of Burgoyne's progress. Debate: Was Burgoyne justly treateed by Parliament?	Written: Biographies of leading generals; account of the campaigns.	Use the plan in the study of other military campaigns.	History; biography; geography; language; arithmetic.
Telling the story of the poem; describing the birds of the locality;	written reviews; making bird book.	Study of birds as friends of the farmer; plans for attracting and protecting birds.	Language; nature study; agriculture.
Oral descriptions of the lakes and their industries.	Written account of the same; story of a trip through the lakes.	Study of transportation systems in other localities; use of plan in the study of other geographic units.	Reading; arithmetic; language; geography; history.
Brief account of local news. Forms of expression in written narrations.		Use of the knowledge and skill gained in all written work.	Language; civil government; current history; arithmetic; agriculture; manual arts.
Oral descriptions of coal mines and methods of mining;	written account of the formation of coal; coal booklet.	Use of this plan for the study of iron, rubber, wheat and other industries.	Geography; arithmetic; language; history.

1. The mug.
2. The fairy.
3. Picture of the mountains and rivers.
4. Picture of the King as he came from the pot.

VII. The First Black Stone.

1. The quarrel.
2. Han's preparation for his journey.
3. Han's adventures. What did he see in the glacier?

Why did Hans think a shadow came across the sky?
When did the flash of lightning appear?
How did the sun set?
How did the river appear to Hans?
What happened when Hans cast his flask into the river?

VIII. The Second Black Stone.

How did Schwartz get out of prison?
How did he get his holy water?
Whom did Schwartz meet on his way?
Of whom was Schwartz thinking when he refused water to those who asked for it?
What was his feeling towards Hans?
How did the sun and sky appear to him?
How did the river appear to him when he stood upon the brink?

IX. The Golden River.

Picture Gluck working for the goldsmith.
Why did he mourn for his brothers?
Why was the priest willing to give Gluck the holy water?
How did Gluck's lunch differ from those of his brothers?

Was the journey as difficult for Gluck as it was for Hans and Schwartz?
Compare what he saw with what Hans and Schwartz saw.
How did Gluck meet the King of the Golden River?
How did the river appear to Gluck as he stood upon the brink?
In what sense did the river become a River of Gold?

PRESENTATION

The King of the Golden River ranks as one of the greatest of children's classics, and no more interesting story can be read or told to the pupils. The success of the project will depend chiefly upon three things:

1. The Presentation. The story should be read clearly and with such emphasis and inflection as will bring out the meaning.

Only one section should be read at an exercise.

2. The freedom with which the pupils enter into the discussion.

The pupil should do his own thinking and feel free to describe the pictures he forms from the reading. This point cannot be emphasized too strongly. In the discussion that should follow these descriptions the salient features in them may be united to form complete and satisfactory pictures.

3. Conclusions drawn by the pupils. One unaccustomed to this line of work will be surprised at the judgment shown by even the youngest pupils in their estimate of the characters of the three brothers.

Some of the older pupils will be able to tell why the landscape was so much more beautiful to Gluck than to his brothers on their journeys to the Golden River. The school should memorize the following passage:

The water which has been refused to the cry of the weary and dying is unholy though it had been blessed by every saint in heaven; and the water which is found in the vessel of mercy is holy, though it had been defiled with corpses.

Projects of this sort are far-reaching in their effect. They may be used to introduce some of the finest literary gems to the pupils. *The Great Stone Face, Evangeline, Snowbound* and *The Merchant of Venice* can be used with the older pupils.

Hiawatha's Childhood. The Golden Touch and the first chapters from *Water Babies,* (Vol. IX, page 231.) are examples of selections suitable for younger pupils.

Always keep in mind the project idea—that the pupils follow their own activities instead of studying the selection according to a set plan prepared for them.

A GARDEN PROJECT

In every school there are pupils who are fond of gardening, and they should have the opportunity to develop this aptitude in an intelligent and systematic manner.

Since the school garden is neglected during the long summer vacation, the home garden will prove much more successful. It aids in training the pupil in responsibility and gives him a definite interest through the summer. It also serves as a connecting link between the work at school and work at home.

Success of this project requires very careful planning on the part of the teacher. Since the project calls for home work, the first step in the plan should consist in securing the consent and co-operation of the parents.

The project is usually most successful when a garden club is organized to include as members all pupils who desire to have a garden, whether boys or girls. Membership should be entirely voluntary, but those who join should be required to pledge themselves to carry the project through the summer.

The club should be organized early in the spring or late in the winter, and should hold at least one meeting a week until the close of school.

Members of the club should provide themselves with note books in which to record important points brought up at the meetings and the decisions arrived at through the discussions.

The first meeting should be devoted to organization, which should include the election of a president, vice-president and secretary who may also act as treasurer. The club should direct its own activities under the advisory supervision of the teacher.

The location and size of plots should receive first consideration. The tendency will be to attempt too much. A small plot—one 25 to 30 feet square—well cultivated, will give much better results than a large plot poorly cared for. A plot 40 feet square is about as large as any member of the club can give the necessary care. The farm is a busy place in summer, and only a short time each day can be devoted to gardening.

When the location and size of the various plots have been decided, the question of crops should follow. Here there will be a variety of opinions. Barring selections that may be made necessary in some cases by the location of the plot and the nature of the soil, each member should be allowed his own choice, which he should make in consultation with his parents.

When each member has decided upon what he is to plant, he should draw a plan of his garden showing the location and space alloted each crop, the location of the walks and any other permanent features of the garden. All these plans should be drawn on the same scale, as one-half inch to the foot.

Soils, fertilizers, the selection of seeds and testing seeds will occupy the members until planting time.

One of the requisites for entering the exhibit in the fall should be that the member record in his note book the method of preparing the soil, the kind and quantity of fertilizer used, method of testing his seed and the results, the date of planting, the number of times the crop was cultivated, the date of harvesting, and the amount of crop raised; the note book is to form a part of the exhibit.

Before the close of school the discussions will be directed to destructive insects and the best methods of preventing their ravages. The importance of doing thorough work in destroying insect pests should be emphasized.

It will be a good plan for the club to meet regularly during the summer, so that each member may have the benefit of the experiences of all. These meetings will also help to keep up the interest in the work.

THE STUDY OF A TREE

1. Select a tree easily accessible to the pupils and of a species common in the locality. Other things being equal, an oak or an elm is the most desirable, but any well developed tree will answer the purpose.

This project will require occasional observation throughout the school year, so it will be well to begin it in the autumn after the leaves have fallen.

The work during the autumn and winter months should consist of the study of the parts of the tree—boll or trunk, crown, roots. The size, shape and length of the boll should be noted.

The manner of branching and shape of the crown will require several lessons. Compare with other trees, and let the pupils discover the different plans of growth. Outline drawings may be made of each plan.

Study the bark. Encourage the pupils to distinguish other trees of the same species by the bark.

How old is the tree? Someone may know. The answer to this question will give use to the method of ascertaining the age of a tree.

Collecting a cabinet of similar specimens from all the trees in the locality is interesting work for the older boys, and they may easily be induced to gather and prepare the specimens.

The various uses of the lumber from the tree should be considered, also other uses to which trees of this sort may be put.

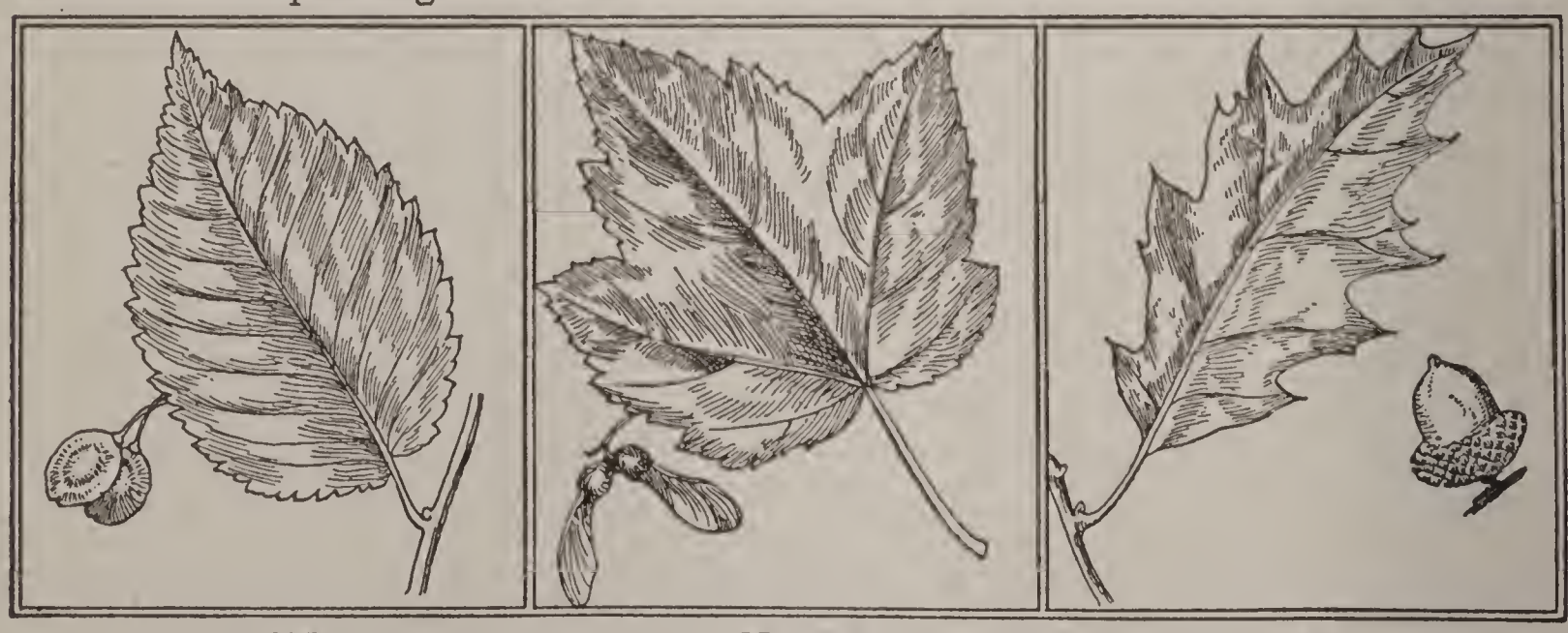
Spring study begins with observations of the swelling of the buds.

Which appear first, the blossoms or the leaves? Record the date at which each appears. Study the blossoms. Study the leaves as they unfold. Suggest that the pupils make drawings of them.

ELM PINE

BRANCHES ARE ARRANGED ACCORDING TO TWO PLANS

Watch the development of the fruit after the blossoms fall. As soon as the fruit, which will be in the form of seeds or nuts, falls, some of it should be gathered and saved for planting.



ELM MAPLE OAK

LEAVES AND FRUIT OF THREE COMMON TREES

The growth of the tree from the seed is an interesting phase of the study. Probably seedlings in various stages of growth will be found under the tree in the

spring. The seeds gathered may be planted in pots or in the school yard and their growth studied.

Transplanting trees may be discussed and a project of planting a tree on the school grounds on Arbor Day developed. (See *Arbor and Bird Day Program,* Vol. X, page 326).

The preservation and care of trees naturally follows, and in connection with this the national forest preserves and the government's care of forests should receive some attention. See FOREST SERVICE.

Press some leaves and blossoms of the trees studied. These, with the specimens of wood prepared by the pupils, will form an interesting feature of the school exhibit.

Ask the pupils to memorize Joyce Kilmer's beautiful poem.

THE TREE

I think that I shall never see
A poem lovely as a tree.

A tree whose hungry mouth is pressed
Against the earth's sweet flowing breast.

A tree that looks at God all day
And lifts her leafy arms to pray;

A tree that may in summer wear
A nest of robbins in her hair;

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree.

THE GREAT LAKES AS A WATERWAY

METHOD OF PRESENTATION

I. The following sketch contains a summary of the facts that should be grouped around the central idea—the Great Lakes as a Waterway—as a unit of study. These facts should be thoroughly mastered by the teacher so she can discuss them without a book before suggesting the topic to the pupils. Morever, while this sketch includes the essential facts for the study, the more interesting details the teacher can add the better. Such details, especially if they relate to personal experience, lend special interest and charm to the subject.

The information necessary for handling this project successfully will be found in the volumes of the *Standard Reference Work,* and specific references are given in connection with each problem presented. The teacher should also consult histories of the United States and commercial geographies. The following works will be found especially helpful in enriching the subject: *The Great Lakes,* Curwood; the volume, *Transportation* in the *Great American Industries* series, Rocheleau; *Geography of Commerce and Industry* by the same author; *LaSalle and the Great West,* Parkman, and *Marquette,* Reuben Gold Thwaites. Doubtless your school or public library contains one or more of these volumes.

II. As outlined, this project is intended for the seventh and eighth grades, but the main features are adaptable to a sixth grade or even to a fifth grade, if the great underlying facts only are treated.

III. The project naturally presents itself in a series of problems which are outlined on page 368.

IV. So plan the geography or history lessons that they will lead the pupils to suggest the study of the Great Lakes. This will insure interest and enthusiam in the work.

V. Make free use of pictures, maps and all helps obtainable

VI. This project is constructive and far-reaching. It is doubtful if a more valuable unit for geographic study can be found. Devote sufficient time to this study to enable the class to attain the purpose sought. In the mastery of this pro-

ject, the pupils will acquire a power and a method of study that will enable them rapidly to master other similar units.

PROBLEMS

I. Location and extent of the Great Lakes and their drainage basin.

Consult a map of the United States and Canada. Consult the following topics in the volumes of the *Standard Reference Work*: GREAT LAKES; SUPERIOR; HURON; MICHIGAN; ERIE; ONTARIO; NIAGARA; ST. LAWRENCE RIVER; RAIN.

II. Natural advantages as a waterway.

1. Surface of surrounding country. See UNITED STATES, subtitle *Topography;* CANADA, subtitle *Surface.*

2. Transportation routes and commercial centers. Consult a railroad map of the United States and Canada and a Mercator's map of the world.

See CANAL; RAILROADS; SAULTE STE. MARIE; WELLAND CANAL; ST. LAWRENCE RIVER; ERIE CANAL; DULUTH; DETROIT; CLEVELAND; ERIE; BUFFALO; MONTREAL; CHICAGO; MILWAUKEE.

III. Traffic on he lakes. See IRON; COAL; LUMBER, and the lake ports mentioned above.

1. Distances on the lakes. See table, page

2. Compare freight rates by rail and by water, and show cause for the difference.

(a) More handling by rail.

(b) Shorter time.

(c) Greater expense for equipment by rail, road bed, etc.

(d) Greater expense in hauling by the ton-mile.

3. Extent of traffic. Use matter in the text.

IV. Passenger traffic.

1. Principal passenger routes.

2. Shorter routes.

3. The three great lake terminals—Buffalo, Duluth, Chicago.

4. Other important passenger ports—Cleveland, Toledo, Detroit, Mackinac Island, Milwaukee, Parry Sound.

5. Excursion points near large cities.

6. A trip through the lakes.

A study of the advertising matter issued by the leading lake steamship lines will be very helpful in connection with this topic.

V. The ships.

VI. History.

1. Discovery.

See CHAMPLAIN; MARQUETTE; LASALLE; HENNEPIN; and articles on each of the lakes.

2. Indian warfare of the early days. See INDIANS; ALGONQUINS; JESUITS.

3. French and Indian Wars. See FUR; FRONTENAC; MONTCALM; WOLFE.

4. British control. Indian warfare. See PONTIAC; DETROIT.

5. Revolutionary War. Lakes become part of the U. S.

6. War of 1812.

Battle on Lake Erie. See PERRY.

7. Later development. Settlement of the lake country, etc. In 1818, *Walk-in-the Water,* the first steamboat on the upper lakes, was launched on Lake Erie and began making trips from Buffalo to Detroit. In 1836, more than 3,000 canal boats were employed on the Erie Canal, a large part of their traffic being the transportation of emigrants and their effects to the large vessels on Lake Erie.

In 1839, eight steamers were engaged in carrying emigrants to Chicago. It took 16 days to make the round trip from Buffalo.

In 1835, the American Fur Co· built the *John Jacob Astor,* the first large ship to sail Lake Superior.

Development of the copper mines began soon after.

VII. Compare the Great Lakes with the largest lakes in Europe, Asia and Africa. leading the pupils to contrast the geographic conditions·

THE GREAT LAKES AS A WATERWAY

The basin of the Great Lakes is one of the most important geographic units of North America. Centrally located in its relation to the richest agricultural and mineral resources of both the United States and Canada, these vast inland seas with a total area of nearly 95,000 square miles, form the largest body of fresh waters in the world. The total area is a little less than that of Oregon and equal to the area of the New England states, South Carolina and Delaware. Lake Superior, the largest, is a little smaller than Maine; Lake Huron is almost as large as West Virginia; Lake Michigan is about the size of Vermont, New Hampshire and Deleware; Lake Erie is about the size of Vermont, and Lake Ontario a little smaller than New Jersey. Lake Superior has an altitude of 602 feet and a depth of 1,008 feet. Lake Ontario's altitude is 247 feet. Between these levels there is a drop of 355 feet. The rapids at the foot of Lake Superior have a fall of twenty feet, and there is a slight fall between Lake Huron and Lake Erie, but the great drop, about 355 feet, comes between Lake Erie and Lake Ontario and occurs in the Niagara River, over one-half occurring at Niagara Falls.

THE GREAT LAKES

With the exception of the northern shore of Lake Superior, and the pictured rocks on the southern shore, there are no mountains or high bluffs along the shores of the lakes. Barren wastes are found north of Lake Superior, but with this exception the lakes are in the midst of a beautiful and fertile region.

Lake Michigan lies wholly within the United States, and the international boundary in the other lakes follows the deepest channel. This gives the greater part of Lake Superior to the United States, and divides lakes Huron, Erie and Ontario about equally between the United States and Canada.

No large rivers flow into the Great Lakes, but the drainage basin with an area of over 260,000 square miles contains many streams whose combined volume forms

the mighty St. Lawrence as it issues from Lake Ontario. The St. Louis River, rising in the northeastern part of Minnesota more than 2,000 miles from the sea, is the beginning of this great river system.

The basin has an annual rainfall of from twenty to forty inches, which is ample for agricultural purposes. The soil is fertile, and the Canadian province of Ontario and the states of the Union bordering on the lakes form one of the richest agricultural regions of the world. Cereals, fruits, vegetables, live stock and dairy products are produced in large quantities.

The absence of high mountains and deep gorges makes the construction of roads and railways comparatively inexpensive, and numerous railway lines radiate from each of the prominent ports—Chicago, Milwaukee, Duluth, Detroit, Cleveland and Buffalo—in all directions. Chicago is the greatest railway center in the world. The New York State Barge Canal (formerly the Erie Canal) extends from Lake Erie at Buffalo to the Hudson River at Albany. The Welland Canal forms a navigable waterway between lakes Erie and Ontario, and the great locks at the Soo overcome the fall in the St. Mary's River. Morever, canals around the rapids in the St. Lawrence River allow freight steamers to pass from Lake Ontario to the sea. A ship canal to connect Lake Michigan with the Illinois and Mississippi rivers is under construction. This canal will utilize the Chcago Drainage Canal and, when completed, will enable ocean-going vessels to pass to and fro between Lake Michigan and the Gulf of Mexico.

The importance of the Great Lakes and the St. Lawrence River as a waterway is readily seen. The lakes are easily accessible from all parts of the great agricultural region surrounding them. The route to nothern European ports by way of the St. Lawrence is about 600 miles shorter than that by way of New York; the only disadvantage of this northern waterway is that the lakes and rivers are closed by ice for about four months in the year.

SAINT MARY'S RIVER

Transportation by water is so much less expensive than that by rail that it pays to transship grain and flour going eastward from Minnesota and Dakota at Duluth and Chicago to the great freighters which take the cargo to Buffalo, whence it may be carried to New York by the Barge Canal.

In normal times it costs only two cents a bushel to transport grain from Duluth to Buffalo by the lake route, and it costs four or five times that amount to transport it by rail. This difference in freight rates constitutes a saving to the people amounting to approximately one hundred million dollars a year. What is true of heavy freight going down the lakes is equally true of that moved in the opposite direction. Most of the coal for the Northwest is carried to Duluth and other lake ports by ship whence it is transshipped to its destination. Heavy machinery and much other bulky freight is transported in a similar manner.

Railroads cannot carry freight at as low rates as ships for the following reasons:

1. The cost of equipment is much greater, the greatest part of this cost going into the roadbed, whereas the path for the ship is provided by Nature. All expense incurred for building locks and breakwaters, dredging channels and erecting and caring for lighthouses is borne by the government.

2. The running expense of a railroad train is greater than that of a ship in proportion to the amount of freight it can carry.

3. The cost of handling freight on a railroad is proportionally greater than that of handling it on a ship.

Railroads have the following points of vantage over ships on the Great Lakes:

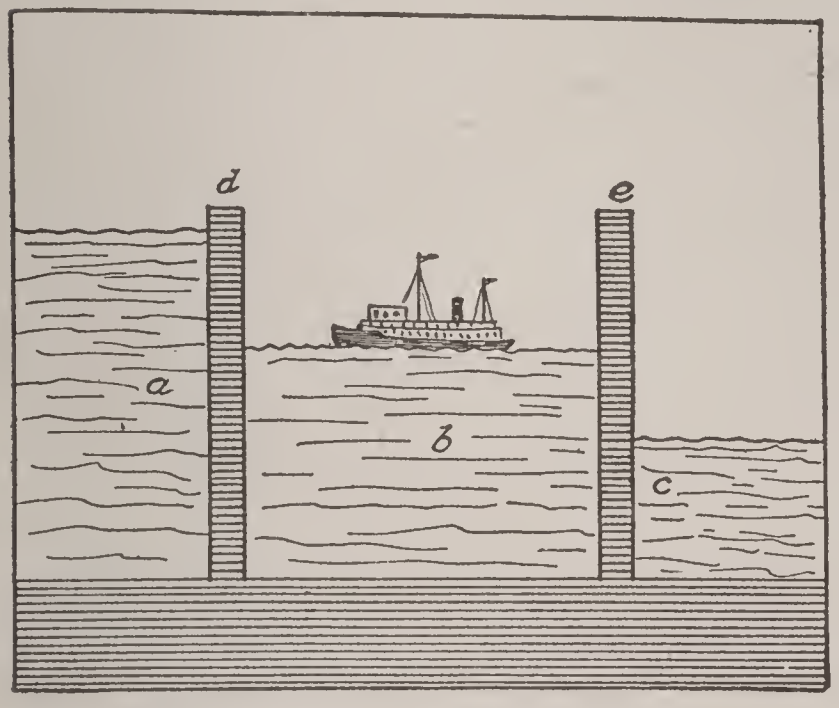
1. They can run the year round, while ships must stop during the winter.

2. They can carry freight to many points that cannot be reached directly by ships.

3. Trains usually move at a higher average of speed than ships, consequently they are more desirable for rapid transit. Moreover, some rail routes are shorter than water routes. The following table gives the approximate distances by water between the most important lake ports:

	Miles
Buffalo and Chicago	1,000
Buffalo and Duluth	1,000
Buffalo and Cleveland	185
Buffalo and Detroit	270
Detroit and Cleveland	85
Duluth and Sault Ste. Marie	420
Chicago and Duluth	850
Sault Ste. Marie and Detroit	360
Chicago and Mackinac Island	360
Mackinac Island and Sault Ste. Marie	80

The magnitude of the traffic on the lakes is seldom realized by any except those directly engaged in it. This traffic requires over 3,000 ships, gives employment to over 25,000 people and consumes about three million tons of coal a season. It exceeds by more than six times the traffic of the Suez Canal.



The boat is passing from a lower to a higher level. **c** shows the water at its lowest level. The boat passes through the gate **e** into **b**. **e** is then closed and the valves in the bottom of **b** are opened, allowing the water from **a** to flow into **b**, which it will do until the water in both chambers is at the same level. The gate **d** is then opened and the boat passes into **a**.

OPERATING A CANAL LOCK

Iron ore, grain, flour, coal and lumber constitute about nine-tenths of the lake commerce. Mr. James Oliver Curwood tells us that there is enough lumber and other building material carried by the lake ships each season to build a city that would accommodate 400,000 people, or a city the size of Cincinnati. There is enough grain transported to supply the inhabitants of this city with bread stuffs for 175 years, and enough coal is shipped from Erie ports to the Northwest to heat their homes for thirty-five years.

When to the above we add the iron ore and other commodities we reach a grand total of over one hundred million tons of freight handled on these lakes each season. If this freight were loaded onto forty-ton freight cars it would occupy a train encircling the earth at the latitude of New York and overlapping for 2,000 miles.

The passenger traffic is of much less importance financially, but the lakes carry about sixteen million passengers each season, or a number equal to the combined population of Pennsylvania, Illinois and Oregon, according to the census of 1920. Only about one-eighth of the passengers are foreign tourists.

Lake trips are among the most delightful excursions in the world. One may go from Duluth to Buffalo, a journey of 1,000 miles; or from Chicago to Buffalo, a trip of equal distance, and return to the starting point within a week, living the entire time in a floating palace and enjoying the invigorating atmosphere and beautiful scenery. The great locks at the Soo are of unceasing interest; the thousands of islands in Georgian Bay are enchanting. Mackinac Island is attractive because of its beauty and its history. The shipping on the Detroit River, the busiest waterway on the globe, and the great lake ports with their varied interests are among the most wonderful examples of American achievement. At Niagara the climax of one of the most enjoyable trips in the world is reached. There are shorter excursions from the large cities on the lakes to points nearby, or those distant from fifty to three hundred miles, that are extensively patronized. There are hundreds of small towns and farm homes on the lake shores where city dwellers can find delightful and inexpensive entertainment during summer vacations.

The traffic calls for a large number of ships, and shipbuilding is an important and highly developed industry. The largest shipyards are at Detroit, and there are others at Buffalo, Lorain, Cleveland, Toledo, West Superior, Chicago and Manitowoc. All vessels are now of steel construction, and no better ships are built than those which come from the shipyards on the Great Lakes. The freighters are of a peculiar pattern, consisting chiefly of a great steel hull lying low in the water. Their cargo capacity ranges from 10,000 to 16,000 tons, the largest ships being over 600 feet long. An ore ship of this pattern can be loaded in less than two hours at the great ore docks in Duluth.

History

The St. Lawrence River was the great highway to the interior of North America during the period of exploration and settlement of the United States and Canada. While the English colonists were engaged in establishing homes in the narrow strip of land between the Atlantic coast and the Appalachian Mountains, the French, following the river, discovered the Great Lakes, explored the interior of the continent, re-discovered the Mississippi and claimed the vast region drained by its waters—now the most valuable agricultural region in the world. The lakes were discovered on the following dates:

Lake	Date	Discoverer
Huron	1615	Joseph LeCaron
Ontario	1615	Samuel Champlain
Superior	1629	Stephen Brule
Michigan	1634	Jean Nicolet
Erie	1641	Louis Joliet

The influence of geographic conditions of a region in determining its development and history are clearly seen in a study of the Great Lakes. The cool, temperate climate, the numerous small lakes and streams and the extensive forests of this region made it the ideal land for fur-bearing animals. The thrifty Frenchman early visioned the possibilities of the fur trade. The versatile character of the French enabled them to adapt themselves to Indian customs and life much more readily than was possible for the English. Moreover, the Indian nations around the lakes were engaged in a warfare destined to lead to the extermination of all but the strongest. In general, this warfare was waged by the Iroquois, or Five Nations, against the nations to the north. These nations needed a powerful ally, and this they found in the French. While the part taken by the French was greatly to their advantage in the fur trade,

it incurred for them the lasting enmity of the Five Nations, who in the final struggle between the French and English, cast their lot with the latter and contributed largely to the overthrow of the French. The Jesuit Missionaries also exerted a powerful influence over many of the Indians, and these missions often became outposts for the fur traders.

Conflicting Claims

Previous to the so-called French and Indian Wars, the French had established forts or trading posts at Mackinac Island, on the St. Clair River, at Detroit, Niagara, and Frontenac, the present site of Kingston, Ontario. After the English obtained control of the country, the fur trade was more completely systematized. The Hudson's Bay Company was organized in 1770, the Northwest Fur Company in 1783 and the American Fur Company in 1809. For two centuries, from 1634 to 1834, the fur trade was the leading industry of the region. When New France became English territory, emigration was restricted in the valley of the Ohio and the territory around the Great Lakes by royal decree, and the country was designated as "the habitation of beasts and beavers."

But the Indians could not understand this change of masters, and a strange situation developed. The British had conquered the French, but they had not conquered the Indians who asked "Why is it that our French brothers run? Shall we run because they have run? We were their friends and brothers. We are their friends now, and though you have conquered them we will still fight for them so long as there are among us men who can fight."

"A more beautiful illustration," says Curwood, "of the friendship and loyalty of the Indian warrior could hardly be conceived than this," and it was this loyalty that caused the wars and massacres that marked the course of English rule along the lakes. However, in the struggle for American independence, the Indians sided with the British, and when the struggle ended with a victory for the colonies and the territory bordering the Great Lakes on the south was ceded to the United States, there was further trouble which was not finally settled until after the Black Hawk War in 1831.

Later Development

Soon after the Treaty of Paris in 1783, settlers from the eastern states began to move into the region west of the Appalachian Mountains, and the American development of the region around the Great Lakes began. The fur trader had discovered and explored the wilderness. He was driven out by the lumberman and the miner, who spoiled his field with such speed that in a decade or two, fur trading, as a leading industry, was banished to more distant quarters.

These industries opened the way for their successor, the pioneer farmer. Thousands of settlers poured iito Ohio, Indiana and Illinois. Then progress was interrupted by the War of 1812, in which these settlers took a brilliant part. After this war the era of prosperity, which has continued to the present, began. With the settling of the country, a demand for lumber sprang up, and by 1830, lumbering had become an important industry.

In 1818 the Walk-in-the-Water, the first steamboat on the upper lakes, was launched on Lake Erie. The completion of the Erie Canal in 1825, was a great impetus to emigration westward, because families could travel to Buffalo by canal, and from there to points on the lakes by sailing vessel or steamship, without incurring the hardships connected with a wagon journey over almost impassible roads. By 1836, over 3,000 boats were employed on this canal, the larger part of them being used for transporting settlers and their effects to Buffalo.

With the influx of settlers, towns sprang up on the shores of the lakes at convenient points of connection between roads and lake vessels—Buffalo, Cleveland,

Detroit, Chicago, Milwaukee and Duluth in the United States, and Toronto in Canada owe their beginning to such conditions. That they were strategic points in the development of the country is proved by their continual growth and prosperity. In 1920, Chicago, Detroit and Cleveland ranked among the first five cities in population in the country. Buffalo was twelfth and Milwaukee thirteenth, while Toronto is the second city in Canada.

Mining was developed later, but with the opening of the great iron mines in Michigan, Wisconsin and Minnesota, the industry grew rapidly, and this region now furnishes more iron than any other region in the world. The greater part of the ore is in the form of loose earth, or gravel, and is easily loaded on cars with steam shovels. One of these shovels will load a train of eight forty-ton cars in twenty minutes. At the docks the cars are unloaded by opening sliding doors in the bottom and allowing the ore to fall into huge pockets, from which it slides down chutes into the holds of the great ships that carry it down the lakes.

The ore is loaded by gravity and unloaded by special machinery that performs the work with remarkable rapidity, so that at each end of its voyage a ship remains in dock only a few hours.

The great steel works at and around Chicago, and those at Cleveland and other lake ports, are convenient meeting places for the ore and the fuel necessary to smelt it. Since it requires two tons of coal to smelt one ton of ore, it is economy to transport the ore to the vicinity of the coal fields, and to this geographic condition is due the location of the great steel plants, on or near lakes Michigan and Erie.

The early advantages offered by this great waterway have become increasingly valuable year by year. The census of 1920 shows that over one-fourth the population of the United States and Canada is found in the states and the provinces bordering on the Great Lakes. If one takes a pair of dividers and measures on the scale of the map of these countries a radius of 500 miles, then places one of the points of the dividers on the Soo and draws a circle, within this circle will be found one-third of the population of the two countries.

Other Projects In Geography—The mastery of this project not only gives a method of study which makes geography real to the pupils but it also open up to them, and to the teacher as well, unlimited possibilities for future study. Prepare and use similar plans for such units as th Mississippi River, the Rocky Mountains, the Atlantic Ocean, New York City, and one of the great railway lines of the country, presumably the one in which the pupils are most interested becaue of the locality in which the live. In place of New York City, which is simply suggestive, some city in your own state may be taken. The same method may be applied to great industries, such as coal, iron and steel, meat-packing, corn, wheat, and other grains.

SCHOOL EXHIBIT

I. A Community Project. This is a community project and the interest of every resident of the district should be secured. The exhbit should be a regular annual event, and plans for it should be laid at the beginning of the school year. The teacher and the local officials should constitute the board of management, but they should, as far as possible, act only as an advisory committee, letting the direct management fall upon the older pupils.

II. Purposes. The following purposes should be sought by the exhibit:

1. To enable the pupils and parents to survey the work of the year, and note the progress made.

2. To stimulate home work that is directly related to the school work.

3. To increase the interest of the patrons in the work of the school and to form a more vital connection between the home and the school.

4. To train the pupils in organizing material.

These purposes will constitute strong motivation for all school work during the year.

III. PLANS. Careful planning, far in advance, is necessary. First of all, the teacher should secure the consent and enlist the cooperation of the school officials. Following this, the cooperation of the parents should be secured. With this backing, the success of the project is practically assured.

1. Discuss the project with the pupils soon after the beginning of school. The chief purpose of this discussion should be to awaken their interest. If there are a number of pupils old enough to assume the burden, let it be known that the active management, subject to the supervision of the teacher and school officials, will fall upon them.

2. Committees on exhibits, decorations, program, invitations and judges should be appointed four or five weeks before the exhibit is to be held. Other committees can be added if they are found necessary.

IV. PREPARATION. 1. Since one purpose of the exhibit is to show the progress the pupils have made, specimens of all written work should be saved for the exhibit at stated intervals.

2. Construction work, such as paper folding and booklets made by the primary grades, should be given a place; every child must feel that he has a part in the exhibit.

3. Note books, prepared by the pupils of the intermediate and grammar grades in connection with their various studies, should constitute an important feature of the display.

Specimens or drawings of plants and pressed leaves will form an attractive feature.

4. Home work—sewing, canning and cooking by the girls and manual training work, samples of garden produce, corn or other crops raised by the boys—should form a conspicuous part of the exhibit. If there are poultry, calf or pig clubs in the district, a live stock department may be added if conditions will permit.

In short, the exhibit should cover the school work of the pupils and the home work directly related to the school work. Specimens of cookery and other perishable material will, of course, be prepared just before the exhibit opens.

5. Rules governing all exhibits should be agreed upon, and a written copy should be placed on the bulletin board where it may remain for consultation.

6. The time of the exhibit will depend upon the interests to be served. If school work and projects that can be completed in a short time only are to be given place, the logical time is at the close of the school for the year. If, however, farm and garden projects are to be considered, the exhibit should occur in October or November in most localities. See GARDENING, page 364.

OTHER COMMUNITY PROJECTS

Every school house should be the center of community activities and every school district should be organized as a community center. Naturally, the teacher is the one upon whom the responsibility of organizing such a center develops. If nothing of the kind has been tried in your district, the school exhibit affords an excellent opportunity for broaching the subject and securing the interest of the school officials and patrons. In the article, *Community Center*. Volume I of the STANDARD REFERENCE WORK, explicit directions for organizing the center are given. A careful study of this article will enable one to present the matter clearly and forcefully.

A good time to present this subject is in connection with the program which will be given sometime during the school exhibit, and if the matter is clearly presented at this time, doubtless the assembly will vote to appoint a committee on organization. If this is done, a definite time for another meeting can be fixed.

This committee should be prepared at the next meeting to report a definite plan of organization which would consist of a brief constitution or set of by-laws and the nomination of officers for the permanent organization or the suggestion of nominating committee. If the second plan is followed this committee would report at the second meeting and the permanent officers would then be elected. It is needless to say that these officers should be chosen with the greatest care and probably the second plan of choosing is the wiser.

The first meeting of the community center is all important and upon its success will depend very largely the success of the project. A brief but interesting program, which will include some good music, should be prepared. Probably the greater part of this program could be furnished by the pupils of the school. However, some of the citizens of the district should be asked to give brief talks. Either preceding or following the program, the organization should be perfected and this should be followed by a social hour. The important thing at this meeting is to make everyone feel at home and to realize that in such organization something which has been lacking will be supplied to rural life; also to convince those present that a community center affords an opportunity, not only for pleasure, but for intellectual advancement as well.

The success of future meetings will depend upon the care with which the officers of the organization forecast their programs for a series of meetings. A young peoples' organization should be formed unless there is one already in the district. If such an organization exists its co-operation can be easily secured. The meetings should take the form of a public forum in which anyone should feel free to express his opinion upon any question proper to bring before such an assembly. A discussion of public questions will awaken a keen interest in the affairs of the Nation and State, and an occasional debate will serve to give variety and stimulate interest. In all these programs the social feature should receive due attention.

SUGGESTIONS—The foregoing may be summarized in the following suggestions which the teacher will find helpful.

1. Secure the interest and co-operation of the school officials.
2. Secure the interest of the leading families.
3. Secure the active assistance of the young people of the district. Make the enterprise a *community* affair.
4. Begin with what you have and let this beginning lead to what you may desire.
5. Prepare a brief but interesting program for the first meeting, to be followed by a social hour.
6. Bear in mind the importance of selecting the right people for officers of the permanent organization. This can usually be accomplished most satisfactorily by the appointment of a nominating committee.
7. Be enthusiastic and you will awaken enthusiasm in others.

VITALIZING EDUCATION THROUGH THE PROBLEM-PROJECT METHOD

When I was a little girl I saw at the dry goods store a piece of dull yellow cotton goods with a tiny flower spray on sale, at a very reasonable price. I took a sample home and tested it to see that it would not fade. Gaining permission I purchased the dress pattern. Mother was too busy to do anything for me at the time, and child-like, I could not wait. So I cut and made it myself. This experience gave me faith in my own judgment of fabrics, courage to cut and make garments which has stood me in good stead many times since even though my life work has been along such different lines.

Every child has in a similar way objectives which he sets up for himself in his work and in his play which mean much in his development.

Whenever in carrying out his schemes knowledge or skill is needed it is eagerly sought and welcomed, while there is a tendency to resist the acquisition of information and skill for which he has no immediate or recognized need.

It is in consideration of this universal fact that a recent editorial on schools contained these words, "The hardest task that falls to any teacher is that of instructing the imperfect and unwilling mind."

A great problem of school method is to meet the child at a point where his mind is eager and willing and then to lead him on.

The Bright Sayings of Children recently contained this story:

"Why don't you sit down quietly and read one of your books instead of trying to make a boat," suggested a mother to her little son who was fussing over a wooden boat he was trying to fashion.

"Cause I don't like to keep reading other people's thinks when I want to make my hands do a think of my own," he answered.

The school and home must give the children more opportunity to think for themselves and to work out their own thoughts.

The problem method, the project method and the socialized recitation are all types of school methods where the emphasis is placed on the conscious need of the child—that is something which he wishes to know or to accomplish.

In each the teacher is more in the background and the children more truly in the foreground than in the traditional methods of teaching.

Each child is given a larger part in attaining his education. It has been freely said that the individual must educate himself. These methods are clearer recognition of the way in which he does it.

It is a well-known fact that children learn much from one another, especially from those only a little in advance of themselves. In these methods there is much opportunity to give and to receive legitimate mutual instruction and aid.

As said before, there is the innate tendency to resist information and skill for which one sees no immediate use. The project and the problem methods provide immediate and practical use for valuable knowledge and skill.

Also the value of a concrete basis for knowledge is emphasized and provided for.

Where the project is one to be worked out in a material way the motor-minded child has greater opportunity for learning and for becoming a valued part of the social group.

To illustrate: A sixth grade project was to prepare Christmas presents for some little girls in a home for crippled children. The pupils decided that each boy

would make a doll's bedstead while each girl would dress a doll and make the bedding for the bedstead.. One boy, who was dull when measured by the standards of the regular academic work of the school, made an exquisite doll bedstead. His work was so much superior to that of all the others that he became at once the leader and the instructor of the other boys in their part of the project, and taught them how to approximate bedsteads the equal of his. The results were the most beautiful set of doll's bedsteads one could desire. Better yet this boy's talent and skill were recognized which encouraged him so greatly that it led to an improvement in all his work. Today he is a deservedly successful man—successful not only in the character of the work which he does but in the way in which he handles men.

The project and the problem methods are an attempt to use in the school the natural methods by which the child had been learning in his pre-school days and which he still uses in his out-of-school life.

The socialized recitation differs from the extremely formal teacher quiz in that more of the questioning, illustration, and collateral information comes from the pupils and less from the teacher. In so far as such questions are relative and are sincere—that is, asked for desired information, to aid the judgment, or to really help another pupil—the plan is excellent. But when the questioning or reciting is to show off or to down another pupil it is of more than doubtful social value. When properly conducted it practises the pupils in "the rare old wisdom of sincerity" and of habitual courtesy.

These methods, the problem, the project and the socialized recitation, go together and are so interwoven that it is not easy to separate them.

The problem is met when a question or difficulty arises which calls for choice or judgment to determine the best possible solution. This is in marked contrast to artificial quizzes which call for memoritor answers.

The problem is most vital and valuable when it relates to the child's life at the time.

The problem may call for little or much research. It may call for little or much weighing of evidence, but it does call for the best possible solution. It gives an incentive for the attack, guides the interest, and furnishes a definite goal.

Both the problem method and the project method set up clear and definite objections—something to be done—the accomplishment of which may be recognized by the pupil.

The project is broader and may include all that may be claimed for the other methods. The project may include many problems and may call for much truly socialized recitation.

The project will usually call for material accomplishment which greatly enhances its educational value. It grips the constructive imagination, gives continuity to the child's work, and correlates for him the information needed for the execution of his plans. Interest and effort work together.

This does not mean that all the information which the schools are seeking to impart should be loaded upon the project. But the child having found that some particular knowledge—a certain amount of number facts, for example—is valuable in his project has a more intelligent interest in gaining other number facts which he did not need to use in that particular piece of work. Knowledge gained through project and so utilized carries over into his life experiences.

The projects may be wholly suggested by the teacher or the course of study and adopted by the pupils.

A step—a long step higher is when the projects grow naturally out of the child's life and are truly his own. The results may be crude, but whatever is really worth doing is worth doing crudely if that represents the worker's best effort. Chesterton says, "Education is at least a form of will-worship, not of cowardly fact-

worship. Think of the exercise of will required to carry any enterprise through to a finish!"

The project to be a project to the child must be something which he determines to accomplish. It must be wholly or in part self-initiated or self-adopted. It calls for planning and purposing, for activity, mental, or physical, or both in its execution. It must have a definite end in view from the start, though new objectives and farther ones may develop as the project is being worked out.

The child must know when the end is reached and be able to judge of his achievement as it progresses and as the end is reached. This gives him the schooling of failure and the joy of achievement.

In the progress of the project many problems will arise which call for discussion. Here the socialized recitation comes in ideally because naturally. Decisions must be made. This is the ideal problem.

In the working out of a project some of the information of the academic studies will be needed, thus vitalizing these studies by showing the pupil his practical need of them.

When the project is worked out by use of material things, or really grows out of the life of the child, or out of the life and industries about him, it has the element of concreteness and reality so sadly lacking in much of the traditional school work

This broader view of education while fixing knowledge and skill also recognizes that attitudes are being set up which tend to enrich or impoverish the life of the individual.

Adding to the points made, and summing up, the project method—

(1) Gives practice in clear thinking and problem solving.
(2) Helps the child to distinguish between essentials and non-essentials.
(3) Gives practice in exercising one's own judgment and not relying wholly upon the judgment of others.
(4) Furnishes a definite purpose.
(5) Arouses interest, and intensifies interest.
(6) Makes a child want to come to school to gain more knowledge because the knowledge is put to use at once.
(7) Makes for more whole-hearted activity, thereby removing the drab atmosphere of the school-room.
(8) Makes for efficiency because it promotes sustained self-motivated effort, not forced effort.
(9) Removes drudgery.
(10) Helps a child to find himself.
(11) Helps the teacher to see more of the real child and his possibilities; usually only a small part of the child is revealed even to the most sympathetic teacher.
(12) Furnishes opportunity for a pupil to test his results to see if he has failed or succeeded.
(13) Creates a more democratic situation where habits of good citizenship can be fixed because they can be practiced.
(14) Gives a real setting for subject matter.
(15) Results in better memory of useful impressions and of subject matter.
(16) Results in satisfaction in doing and in learning. Unless satisfaction takes place there is no real teaching.
(17) Creates an environment in which facts are gained and are made use of.
(18) Leads into greater and broader lines of thought and activity.
(19) Results in vivid impressions.
(20) Furnishes life situations which carry on into life outside the school-room.
(21) Furnishes specific purposes for work or play just as life does.
(22) Leads to resourcefulness.

SUGGESTED PROJECTS

Play Project

One of the most ideal projects which is suitable for any and every grade and every school is a dramatic project.

The play may be selected or it may be worked out from some suitable story or it may be entirely original.

CINDERELLA

One of the primary grades wishing to buy some books for their room library decided to give a play. After reading various stories to determine which would dramatize well, they chose the story of Cinderella.

They read as many versions of Cinderella as they could to find the one which best suited their purpose. This involved much reading, both oral and silent.

There was much purposeful oral language in the discussion of the stories, in the telling of the story as a whole and in parts, in the planning of the scenes, etc.

There was much searching for pictures to help them to plan the scenes and the costumes.

There was measuring and real number work in connection with the making of the costumes and making bills for the materials used.

There was motivated hand work in the making of the costumes, and opportunity for judging of their results.

There was physical training for the little people in learning the dances.

The songs gave a practical application to their music lessons.

The play thus became the unifying interest around which much of their school work centered.

The following is the play as worked out with one of the songs, and the outline of certain goals in tool subjects, attitudes, and habits as drawn up by the teacher:

ACT I

SISTERS: Cinderella! Cinderella!

LAURA: Come here this minute!

MARTHA: You must get us ready for the ball.

LAURA: See what time it is. The ball starts at eight o'clock, and we are not half dressed.

MARTHA: Now fix my sash, Cinderella.

LAURA: And I want you to arrange my hair.

MARTHA: Aren't we going to have a grand time at the ball! I am going to dance with the king's son. I wonder who will be there.

LAURA: All the rich people of the town are going. Do you think the Prince will like my dress?

MARTHA: No, sister, I think he will like mine better. Cinderella, wouldn't you like to go to the party?

CINDERELLA: No, sister, you are only making fun of me. You know I have no clothes to wear to a party.

MARTHA: You are right. People would laugh to see a cinder-girl in such a place. Now bring us our coats and hats and we will be ready to go.

SISTERS: Good-bye, Cinderella.

CINDERELLA: Good-bye, sisters. (Cinderella weeps. Enter Fairy.)

FAIRY GODMOTHER: Why are you weeping, my little daughter?

CINDERELLA: Oh, I should so like to go to the ball! I should so like to go to the ball!

FAIRY GODMOTHER: Well, I think we can arrange that. Run into the garden and bring me the largest pumpkin you can find. In the mouse-trap there are six mice. In the rat-trap there is a monster rat. Then go into the garden and bring

Helga and the White Peacock

Given at the Willard School, Evanston, Ill., by Eva A. Smedley, Dramatics and Literature. The costumes were made by the pupils of the Eighth Grade, Noyes St. School, under Miss Smedley's direction.

From Scene II.

Olaf: "I thought they were bars of steel, but they were only spiders' webs."

The scenery was made by the pupils of the Ninth Grade, Willard School. The materials used were wrapping paper and kalsomine.

me the six lizards that are hiding behind the watering pot. The pumpkin shall be changed into a dainty little coach, lined with soft yellow velvet. The mice shall be changed into fine black horses. The monster rat shall become a tall coachman, with shiny buttons on his coat. The lizards shall become six footmen with bright red coats and shiny black hats. Then you will be ready for the ball.

CINDERELLA: Oh! But must I go in these rags?

FAIRY GODMOTHER: Your ragged dress shall change into the finest silk with ornaments of gold and silver. There will be sparkling jewels in your hair. And the most wonderful thing of all, are the tiny glass slippers that look like diamonds.

CINDERELLA: Thank you. Thank you. I am so happy to go to the ball.

FAIRY GODMOTHER: Hurry, my darling. It is late now, and you must leave for home before the clock strikes twelve. If you stay one minute after midnight, your coach will become a pumpkin; your horses will be mice, your coachman will be a rat, your footmen will be lizards, and your fine clothes will become rags.

CINDERELLA: I promise to obey you.

ACT II

GUEST: What a beautiful Princess! I wonder who she is!

GUEST: And what a beautiful gown. I am going to have one exactly like it, if any dressmaker can find the pattern. (Singing and dancing.)

ACT III

CINDERELLA: Oh, I had such a nice time at the ball. The Prince danced with me, and I sat by my sisters, and gave them some of the fruit the Prince had given me. May I go again tomorrow evening? (Sisters enter and fairy disappears.)

SISTERS: Oh, Cinderella. The most wonderful Princess that ever was seen came to the ball.

CINDERELLA: What was her name?

MARTHA: Nobody knows, and the king's son would give the whole world to know who she is.

CINDERELLA: Was she so beautiful? How I should like to see her. May I borrow the yellow dress you wear on Sundays, so I might go to the ball, and see the Princess?

LAURA: What? Lend my dress to a cinder-girl? Certainly not. Good-night.

ACT IV

(Dance)

CINDERELLA: Oh! I forgot all about the time. It is twelve o'clock and I must hurry home.

GUEST: I wonder why she is in such a hurry.

PRINCE: Won't you please stay a little longer? We have had such a good time together.

The Princess has lost this beautiful slipper. I shall keep it until tomorrow. Then I shall send messengers all through the city to find the owner of it.

ACT V

LAURA: The beautiful Princess was at the ball again last night, and when the clock struck twelve, she fled from the palace without saying good-bye. The Prince was very much surprised because she was in such a hurry and followed her, but she had vanished. As he ran down the steps, he found a slipper belonging to the Princess. Today he will send messengers all through the city to find the owner of it. The Prince is going to marry the fair maiden who can wear the slipper.

MARTHA: Oh, here are the messengers now. Hurry, Cinderella, get under the tub, quick. Come in. We would like to try on the slipper. (Sisters try it on.)

FAIRY GODMOTHER: You may pare off the heel,
You may pare off the toe,
But under the tub the slipper goes.

SONG

1. Will it fit you, gentle lady?
Let the shoe your fate decide;
Should it fit you, gentle lady,
You may be the Prince's bride.

2. 'Twill not fit you, gentle lady,
See your foot is much too wide;
'Twill not fit you, gentle lady;
You'll not be the Prince's bride.

These are the possibilities anticipated by the teacher, but not imposed upon the pupils.

READING:

1. Extensive reading of Cinderella story in as many well-written books as possible.
2. Re-reading parts of the story in order to organize the play.
3. Re-reading the parts after being written by the class in order to learn the play.

WRITING:

1. Writing one's part.
2. Writing invitations to the play.
3. Writing or printing the tickets.
4. Writing of criticisms or suggestions for bettering the play.
5. Keeping a record of expenditures.

SPELLING:

1. Spelling words in the invitations.
2. Words on the tickets.

LANGUAGE:

1. Discussion of plans for carrying on the play.
2. Discussion of ways for bettering the play.
3. Planning of costumes.
4. Discussion of cost of materials needed and amount of same.

ARITHMETIC:

1. Measuring tickets.
2. Measuring scenery.
3. Measuring cloth for costumes.
4. Computing cost and amount needed.
5. Drill on the table of 3's in order to sell tickets at 3 cents each.
6. Drill in addition and substraction in order to make change rapidly.

ART:

1. Making scenery.
2. Decorating posters in order to advertise play.
3. Designing of costumes.
4. Cutting of letters for poster.

CONSTRUCTION:

1. Making of scenery.
2. Making crown for the prince.
3. Making tickets.
4. Making sword for prince.

GOALS (Habits and Attitudes):

1. Courage to attempt anything.
2. Persistence to finish and to carry to completion this play.
3. Co-operation—the working together of the group.
4. Ability to take and to give criticism and to grow thereby. Discussions of play give ideal opportunities for carrying this out successfully.
5. Resourcefulness. Use of old, discarded materials as far as possible—old dresses, hats, furniture, etc.
6. Leadership and followship.
7. Accuracy in measuring, computing expenses of play, counting money earned.
8. Neatness and order in making posters and costumes, and in taking care of them and of materials, before the play, and after the play.

The project furnishes a real setting for subject matter, giving natural situations in which these tool subjects are needed. It is not something superimposed upon an already overcrowded curriculum but is a unifying centre not necessarily calling for additional time but woven into the program.

ILLUSTRATIONS OF PLAYS AS PROJECTS IN UPPER GRADES

The amusing sketch "Handy Andy Goes to the Post Office" from the novel "Handy Andy," was read by the class to determine whether it would dramatize well. They decided that it would, and proceeded to organize the play.

The first scene must introduce the principal characters, Squire Eagan and Andy, must get over to the audience their relation as master and man, must inform the audience of Andy's ability to blunder which is the theme of the play, and must start him off to the post office which was to be the scene of the fresh blunder.

This was worked out by showing two maids tidying a room at Squire Eagan's. One of them tells the other, who is new to the place, an amusing blunder which Andy had recently made and explained that he was called "Handy" Andy because he was so "onhandy." While they were laughing over the story, Squire Eagan entered. The maids became sedate at once and went meekly to call Andy as ordered. Upon Andy's appearance, the master sent him in haste to the Post Office to get an important letter which he is impatiently awaiting. When Andy went out the Squire emphasized the scene by soliloquizing that if there is a chance to make a blunder Andy will find it.

For Scene II the class had to plan a general store in Ireland in the middle of the last century—a store in which the Post Office is just an incident in the selling and bartering of groceries, dry goods, hardware, etc. Here proprietor, customers, and all must put the situation before the audience and permit Andy to come in and so blunder that he fails to get the letter. This scene calls for much originality and ingenuity to get general effect, costumes, etc. At the same time the two scenes which alternate, I at Squire Eagan's, II at the Post Office, III at Squire Eagan's, IV at the Post Office, V at Squire Eagan's, must be so planned that they can be shifted very quickly and quietly, as the story must proceed rapidly and must not suffer by delays for unnecessary details.

The third scene at Squire Egan's called for little beyond the material furnished by the story itself.

The fourth scene was a repetition of the setting of scene two, and Andy in full view of the audience gets the letter for which he had been sent and steals two others.

The fifth scene was again at Squire Eagan's and the enormity of the blunder is made clear to the now thoroughly frightened Andy, and as he leaves the stage visibly trembling with fear, Squire Eagan exclaims, "There was a chance to make a blunder, a big one, and Andy found it."

Such planning, rearranging, eliminations and additions make most purposeful English work even when only impromptu acting is given, and it is in no sense a finished production. But occasionally a play should be carried out to the limit of the ability of the class to establish some standards of what constitutes good presentation.

On one occasion, the teacher of dramatics was asked to coach a play for an eighth grade graduating class. At the same time she was told that that was all that she was asked to do, as they wished to do all the planning themselves. They borrowed suitable scenery and put it up; collected appropriate furniture and placed it, planned for their costumes, fixed their price for admission, printed and sold their tickets, took care of every detail of ushers, of candy selling, etc. Best of all, when the play was over they returned the furniture, took down the scenery, removed chairs from the auditorium, swept it, and left not one stroke of extra work for the janitor to do because of their dramatic project.

In one school a boy who has an unusual interest in dramatics asked permission to coach a play. He was given permission on condition that the play itself was approved by the teacher of dramatics.

SCHOOL NEWSPAPER

The school newspaper is a time honored project, and is always a good one. It gives opportunity for co-operation, leads to keener observation of newspapers and magazines, to real thinking, to using judgment, etc.

In one school two things were done which are suggestively helpful. Four pupils acted as editors for one issue. They planned some fresh feature which would make their number of the paper unique. Then they carefully read and considered all contributions, selecting what they would use out of the quantity submitted to them by other pupils. After they had arranged it as effectively as possible they selected a group of readers to present it to the assembly.

To make the reading more entertaining it was presented with a dramatic touch. For example on one occasion, a family were seated on the stage when the newsboy passed by calling the paper. The girl of the family hurried enthusiastically to the door to get it, then to the telephone to call her girl chum over because the "Lincolnwood News" had arrived. By this time all the audience were eager to know what was in it. Brother seized it to read the sporting events, father wanted to know the current events, and the girls were eager to read and discuss the stories, personals, etc. The paper was handed about and read with entertaining comments and discussions.

At the end of the year a number was printed containing some of the best articles of the year.

Another school is now publishing a bi-weekly paper, very tiny, but also very valuable for the education the children receive from the work. Their Inquiring Reporter for one issue interviewed a number of pupils as to why they preferred to use their fine school library instead of the public library.

TYPES OF PROJECTS

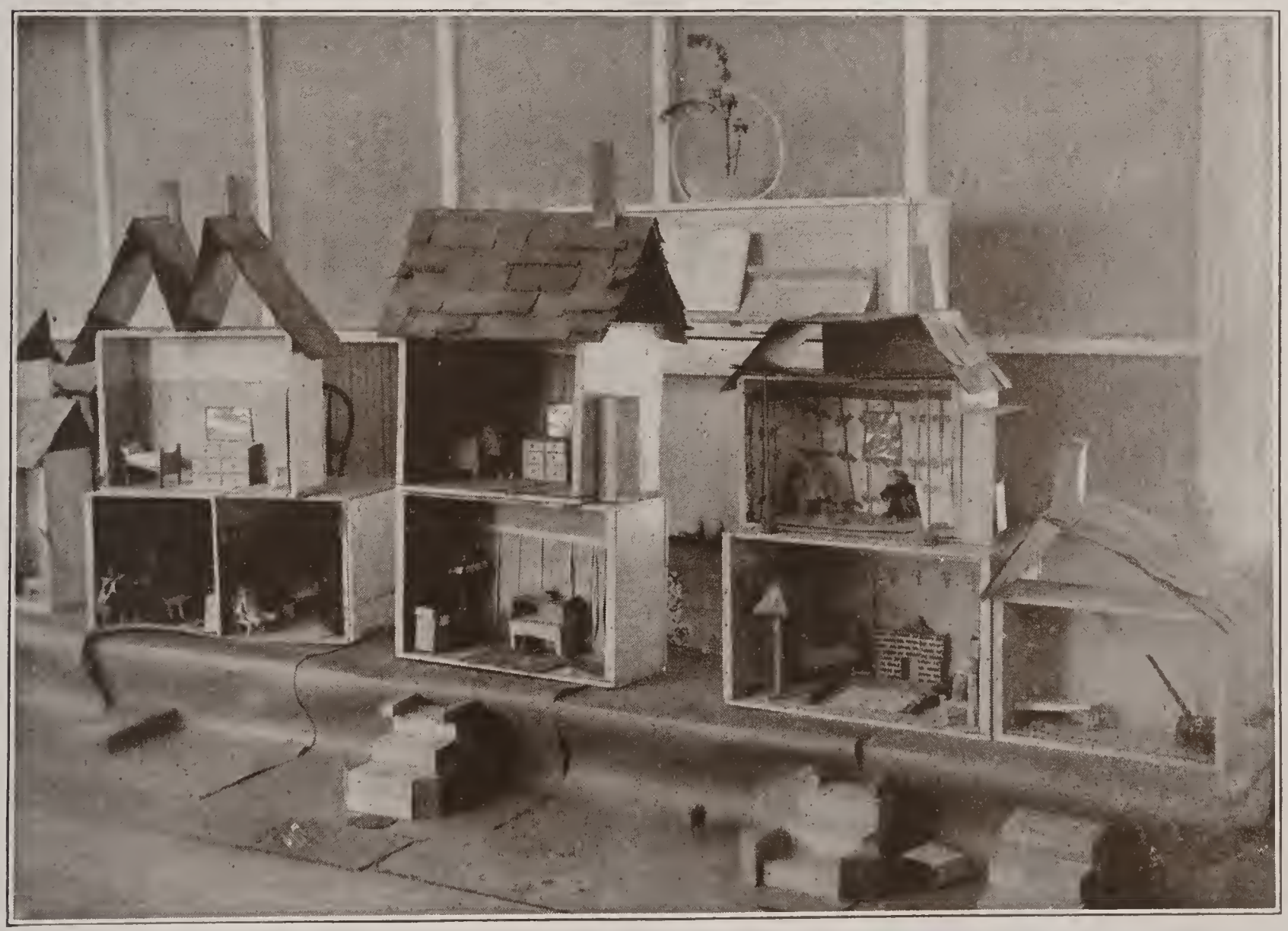
A DEBATE is an excellent project if the clear presentation of facts and their significance and a real desire to know and present the truth is made the aim.

This project leads to wide reading, home discussions, weighing of points, learning to put facts and arguments effectively before an audience.

A QUILT PROJECT is a fine one for a co-operative sewing project as many may work together, and the result may be utilized either as a gift to some needy home or sold for some worthy purpose.

In the DOMESTIC SCIENCE DEPARTMENT each girl has several sewing projects in the course of the year—one of which is to design and make a dress for herself.

"Main Street" in Project Village



Some Typical Houses and Interiors

In the course of this work she learns much of fabrics—their suitability and durability, harmony of coloring—good style as to lines, etc. The result is usually a dress to be envied.

Manual Training Projects. Under one manual training supervisor each boy decided in September just what piece of furniture he wished to make. He then made the necessary designs and drawings and went to work. He worked persistently for as much of the entire year as his project demanded, but the result was a piece of furniture which would be treasured with pride by himself and family. Money could not purchase these finished products.

The Library Project has been worked out successfully in many grades. The idea is to have a small library in each room so well suited to the interests and the ability of the class that they will read many books. In working out this project the children have made their book shelves, painted them, earned some of the money to buy books, taken care of them, and kept an individual record of what they read.

The Family Project is the first grade project which Miss Wells used and recommends in her book "A Project Curriculum," in which she fully describes the way in which it was carried out.

The Village is a project which has been worked out beautifully by the first grade children under Miss Martha C. Olsen, Evanston, Ill. One of the fine things about this project is that the younger children were so enthusiastic about it that they entered the school in September eager to build a new village for themselves. One little fellow who had not yet entered school told the writer, "I can build a house. I can build a whole village."

This picture shows the main street of the village. Starting from the station the train runs down to the fountain.

The second picture shows two of the children busy at house cleaning.

Museum Project. The museum project worked out successfully in one of the primary grades, starting from a horse's tooth brought in by a child. This suggested to another child something interesting which he could bring in. Finally so many things had been brought in that the children suggested that they arrange the articles in a museum and charge admission.

An Historical and Geographical Museum for upper grammar grades results in assembling illustrative material which is loaned or donated from the home which is of great value in making history and geography more tangible and real.

An Indian Project is one which little children enjoy greatly. In their study of the Indian they bring in all the Indian relics and pictures which they can find. They make Indian pottery, costumes, wigwams, etc., and play that they are real Indians.

One second grade class after making, in addition to the things mentioned, an Indian drum, a loom, on which they wove an Indian rug, and painted a scene of woods and lake to cover the front of the room, gave an original Indian play.

First the Indian women came in and danced around and told one another that the braves would soon return from their hunting and tell wonderful stories, and they must be ready for them. So some went to their weaving, some to their corn grinding, some to the building of the fire, etc.

The painted warriors returned, formed a semicircle around the fire and after partaking of the food prepared for them, one little fellow arose very sedately, folded his arms across his breast and told a story, and sat down with all the dignity of an Indian chief. Then another rose in the same manner and told another story, and so on until each had spoken. The stories were all Indian stories which they had read in their free periods from books in their room library. The little play was pleasing and of great educational value to the little folk participating.

The Room Beautiful is a particularly good third grade project though

valuable for any grade. One third grade chose a color scheme and then painted their book case, reading table, book ends, olive jar vase, window box, flower pots, and flower sticks. They made a desk set of a large blotter with corners, clay paper weight, paper spindle and pencil holder. Then they kept the room beautiful by good housekeeping.

The Chicken Project has been carried out several times successfully under this same teacher.

(The picture shows the results.)

First the children whitewashed the inside of the barrel, put straw in it and made a nest. Then Black Biddy came to school with thirteen eggs. The children cared for her so well and she in turn was so faithful to her task that when the long awaited day came Black Biddy was the proud mother of thirteen chickens.

Rome Project. A fourth grade in connection with their study of geography and art made from plasticene St. Peters and its square, the Parthenon, the Coliseum, with Androcles and the Lion in the Arena, and other scenes. To do this they studied pictures intently and joyously.

Book Projects. There are innumerable attractive and profitable book projects which add greatly to the children's interest in acquiring knowledge.

One little boy in his pre-school days collected unusually good pictures of animals. His scrap book is of real value and the child's knowledge of animals was remarkable.

One seventh grade class at their own suggestion organized as an Outing Club. The book in which they kept an illustrated record of their trips to field and wood added greatly to their enjoyment and their educational value. The English lesson on the day following a trip was to discuss and write up what was worth recording. From these individual reports the editors compiled the written records. Drawings and paintings of trees, flowers, rocks, etc., were made—the best of these went into the book.

Illustrating Literature. A long poem like "Snow Bound" or "Evangeline" may be illustrated by drawings, pictures cut from magazines, photographs, etc. The collecting of these helps the student to vizualize the wonderful pictures as described in the poem, and recalls the poem to his mind in leisure moments.

Geography, History, Travel and innumerable other study subjects admit of valuable book projects.

Sandtable Projects. Because of the ease with which a sandtable may be transformed from one scene to another, it is a most admirable medium for the presentation of many minor projects.

On it the children may represent—

1. School playground.
2. Thanksgiving scenes.
3. Winter scenes.
4. Eskimo life.
5. Foreign lands.
6. Indian life, etc.

Projects in rural schools are best illustrated in the splendid work done in Cook County, Illinois, under the leadership of Edwin J. Tobin, County Superintendent of Schools.

The following is an account of the project course which has been so successfully worked out in rural schools of Cook County, Illinois:

Superintendent Edward J. Tobin writes:

"Education should not stop at the school door. The School-Home Project system of instruction brings the teacher and the school to the farm, store, home and factory. Everything outside is brought inside when the school and the teacher

return. Achievement education aims to make instruction inside and outside co-ordinate with the environment of the people. In this way the school and the environment act and react upon each other.

"Our system of education needs to be revolutionized. There seems to be a universal demand for a change that will connect the school training more closely with the life and the work of the people; a change that will bring the school to the home and tie together the book learning of the one and the doing of useful things of the other. Such a system will vitalize book education by putting into practical application the principle—'study what you have need of, or soon will need, and learn by doing.' The introduction of this system has put real education within the reach of every boy and girl, in the schools nearest at hand.

"Every pupil over ten years of age is required to take a course in school-home projects as a part of his regular school work.

"In order properly to carry out this plan, each teacher is employed a sufficient number of days during the summer vacation period so that school-home project work is supervised as effectively as other school work.

"The home is the center of our civilization, therefore, school-home projects are the very best way of making home activities the center of all school work. No other school activities open so wide a field for the profitable and agreeable combination of study with doing as do school-home projects.

"Nothing needs dignifying more than does the scientific tilling of the soil and the doing of ordinary tasks. Nothing dignifies a subject like giving it a place in the school course. Other subjects and occupations have been dignified in that way. The initiating and carrying to successful completion 'school-home projects' will dignify the ordinary tasks of life.

"Pupils should be taught to *do* things as well as to study things."

To aid in the encouragement of this work and to assist the county superintendent, Edward J. Tobin, in the wise supervision thereof, seven men and women, who are exceptionally well fitted for such positions, are employed twelve months in the year as Country Life Directors.

The pupil is advised to send for bulletins on the crops he is raising, also bulletins which treat on disease and insects commonly infesting plants of that nature.

The record book is carefully examined, and the pupil shown the correct way to keep the records of his project work. He is encouraged to be systematic in his bookkeeping, and to keep his record book neat and up to date.

Pictures of club members in their gardens, with their poultry, or any project work in which the pupil is engaged, is a great factor in keeping up the interest of the members. That the taking of pictures is a great incentive for more thorough cultivation of the gardens, is well illustrated in the following paragraph taken from a little girl's garden composition: "The Country Life Director came to take my picture one day, and when we got to the garden he looked at it and said: 'I am sorry but I cannot take the picture today. My camera will not take weeds.' You may be sure after he went away I hustled out to my garden to get the weeds all cleaned out before he came again."

The chief object of these visits to the gardens and home project of any kind, is to add interest and dignity to the work, and to inspire and encourage the pupil to his best efforts in his undertaking. The right sort of encouragement given at the right time works wonders in boy and girl nature.

As a fitting close to the season's work, School-Community Fairs are held. These take place in the school house and on the school grounds, the latter part of September or fore part of October. Teachers, pupils and patrons take an active interest in these Fairs, and up to date every one, without an exception, has been a decided success. At these Fairs the project pupils, patrons and many of the citizens

of the community exhibit their garden and field products, canned goods, pigs, sheep, calves, poultry, and pet stock. Usually, one room is used exclusively for needle and fancy work; and the sewing project members' display of both plain and fancy articles which they have made, takes an important place in this exhibit. Loads of choice garden and field products attractively put up and arranged, and thousands of jars of canned goods are exhibited at some of these Fairs. Suitable premiums are awarded, usually in the form of badges, so that many exhibitors receive recognition and encouragement for their efforts.

The School-Home Activities put a new interest into the common things of life; make study and work interesting and attractive to the pupils; and bring about a larger spirit of co-operation and helpfulness in the school, the home and the community.

GENERAL PLAN

Age and Supervision

1. All pupils over ten years of age are to take a course in school-home projects as a part of their regular school work.
2. This work is an extension of the school system of the county and it will be supervised and directed by the same school officials who direct the work in reading, writing and arithmetic.
3. No pupil shall be permitted to take more than two school-home projects in any one school year.

Supervision

1. School-home projects will be under the general supervision of the County Superintendent of Schools.
2. The Country Life Directors and teachers will co-operate with the parents in directing their children's school-home projects.
3. The Country Life Director will personally visit each school-home project during the year.
4. Teachers will visit and direct all school-home projects in their districts as frequently as possible during the year.

Records

1. All records must be kept on standard forms adopted for school-home projects.
2. Records must be kept up to date for the inspection of the Country Life Directors and teachers on their visits.
3. All record books will be collected by the Country Life Director on completion of a school-home project.
4. Record books will be returned after inspection to be mounted and displayed in the school room.
5. An itemized account of all receipts and expenditures must be kept by each pupil.
6. On completion of a school-home project pupils will construct for exhibition in the office of the County Superintendent of Schools, illustrated booklets, 8½ by 11 inches, these booklets to contain the story of "My School-Home Project," including an itemized account of all receipts and expenditures.

Net Profits

1. The net profit from any school-home project belongs to the pupil.
2. The net profits must be banked, loaned or wisely expended.
3. Parents will see that it is wisely expended, safely loaned or placed in a properly supervised bank.

Exhibitions

1. Each school will take part, with other nearby schools, in an exhibition of School-Home Project Products at an Annual Community Fall Fair.
2. An annual local exhibition of School-Home Project Products will be held in every school some time during the school year.

Photographs

Pictures of School-Home Project members are taken by project groups at the school house, and individually at their homes, showing the work and achievement.

Standard Sign-Boards

1. Uniform standard sign-boards to mark all school-home projects will be used throughout the county.
2. The sign-board should be made by the pupils under the direction of their teachers. Stencils will be furnished so that the sign-board will be uniform.

How to Make Sign-Boards

1. Make the board 12 by 18 inches, from one inch or half-inch lumber, planed on one side.
2. Paint the smooth side of the board white and let it dry.
3. The Country Life Director will provide the necessary stencils.

Display of Sign-Boards

Standard sign-board for all School-Home Projects shall be displayed by the roadside, when possible, or in some other conspicuous place.

School Academic Credit

1. Upon the recommendation of the teacher and Country Life Director, of the successful completion of one or more outlined school-home projects, not less than 10 nor more than 15 per cent will be added to the pupil's academic average for the year.
2. A pupil's academic average plus his achievement percentage constitutes his general average for promotion or graduation.
3. Upon graduation from the eighth grade a seal indicating the number of achievement credits obtained, is affixed to the pupil's diploma.

School Achievement Credits

1. School Achievement Credits are awarded annually to pupils who are recommended by the teacher and Country Life Director as having successfully completed School-Home Projects.
2. Credit-Awarding Exercises are held annually on the second Saturday of June in one of the large theatres in Chicago. The interest is so great that there is no room for late comers.
3. The Achievement Emblem is awarded upon recognition of the first credit.
4. Additional credits are awarded annually thereafter upon recommendation of the teacher and Country Life Director for successful completion of School-Home Projects by the welding of silver stars into the emblem.
5. Two or more credits may be granted for one achievement when the results are extraordinary and have been occasioned by unusual initiative, energy and industry.
6. The receiving of eight School Achievement Credits constitutes the completion of the course.

Achievement Magazine

1. ACHIEVEMENT, a magazine devoted to School-Home Projects of Cook County is issued once a year by the County Superintendent of Schools.
2. Copies of ACHIEVEMENT are furnished free to all pupils doing the work.
3. Names, school-home projects completed, and achievement credits awarded, are published.
4. The Country Life Directors select stories written by pupils on "My School-Home Project" for publication in ACHIEVEMENT.
5. ACHIEVEMENT is illustrated with pictures selected by the Country Life Directors portraying various phases of the pupils' work.

There are thirteen projects from which the pupils may select, being aided in making a wise choice by consultations with teachers and parents. Only two projects may be undertaken in one school year. These projects are wisely chosen, as they lead the child to take a part in the real life about him. There is a wide difference in the intellectual and emotional effect of seeing others gardening and doing it oneself.

Garden Project

The following printed directions are given.

1. Pupils must obtain parents' consent and co-operation.
2. Pupils over ten years of age are to rent a plot of land, paying the usual rent.
3. Pupils are to cultivate their plots under the joint supervision of their parents, teacher, and the Country Life Director.
4. Sign-Boards should be made before the first of March.

Location of Plot

1. The pupil's plot should be as near the home on his father's farm as can be secured.
2. When no land is available on the premises of the parent, a plot should be rented as near the home as possible.
3. Fathers should locate the plot. They know the soil, drainage, and where it will least interfere with their own plans.

Size of Plot

1. The size of the garden should be determined by the age and ability of the member, and should never exceed one-fourth acre—40 square rods.
2. The standard size will be one-tenth of an acre—16 square rods.
3. The plot selected by the pupil's parents is the *right* plot; no matter what its size or shape.

Measuring of Plot

1. Pupils should stake off, measure, and draw diagrams of their plots, which must be filed in their record books.
2. The Country Life Director will assist pupils in verifying these measurements upon visiting the plot.

What to Plant

1. Ask your father; he knows best. Do not plant anything he does not think you should, for you will need his advice from the beginning to the end.
2. A pupil can grow any product that any other pupil in his neighborhood can grow.
3. Members who can send the produce from their gardens direct to the market with their father's load, or have other ways to market it two or three times

a week, may raise such vegetables as radishes, lettuce, beans, spinach, parsley, cucumbers, tomatoes, sweet-corn, carrots, cabbages, beets and peas with remarkable success.

4. Field corn, pop corn, navy beans, potatoes, dry onions, garlic and sugar beets should be grown by pupils living at a distance from market.
5. Flower gardens are profitable when rightly managed.

Market

1. Study carefully market conditions in your locality before deciding what to plant.
2. Do not grow what cannot be readily marketed.
3. Consult your parents; they know market conditions.
4. Grow only those things they tell you can be marketed profitably.

The wise planning of this outline appeals to parents and teachers—the safety to the child in having his garden near the house, the greater opportunity to work when only a few moments are available, the encouragement which can be given him are exceedingly valuable.

The limiting of the size of the garden prevents his attempting too much under the impulse of his first enthusiasm, and then petering out when the hard monotonous weeding must be done.

The recognition of the greater knowledge and wisdom of the father is of real value in the child's character development.

The records not only encourage him to stick to his work, it trains him in exactness.

The wise use of his net profits trains him in thrift.

I planted five quarts of onion sets. When they were of medium size I broke down the tops so as to make the bulbs grow faster. They grew very nicely after that and when the time came to remove them from the soil, they were very large. I raised a bushel and one peck from five quarts of sets.

Martha Reinholdt, Dist. 49, Div. 1.

MY EXPERIENCE WITH MY GARDEN

My piece of land was not large. It had just 7.8 square rods in it.

On March 16th I dug up my garden plot. I dug it with my spade and it was hard digging, for the land had not been used yet.

The teacher had said that I should ask my father what I ought to plant. I did this, and he said to me: "Plant onions, lettuce, cucumbers, pumpkins and tomatoes."

I wanted to start my tomato plants before planting them out into my garden. I took broken tiles and filled them about one-fourth full of broken rocks and gravel. I then filled the remaining three-fourths of each tile with rich black dirt. I then planted the tomato seeds in this black dirt. I watered the seeds every evening a little. In a few days they came up nicely. On April 24th I transplanted the little plants out into my garden. Every night I put a flower pot over every plant, for the frost might come any time and kill the tender plants. I had one hundred and fourteen nice tomato plants. After I planted them out the weather turned warm and they grew very fast.

I planted three rows of onion sets. I also planted my lettuce, pumpkins, beans and cucumbers. I also bought two dozen egg plants. I traded two dozen tomato plants for two dozen pepper plants. I also traded some more tomato plants for some celery plants.

When my tomatoes had grown very tall I tied them up with stakes to hold them up. I had one vine that had 126 tomatoes on it.

On August 21st I pulled my onions and put them out in the sun to dry.

In one single day I picked nine and one-half bushels of ripe tomatoes. On the night of September 14th a hard frost came. I had already gathered and sold about three-fourths of my garden produce.

Mr. Jackson, my teacher, came several times to see me and my garden. Mr. Hart, our Country Life Director, also came to see my garden. Supt. Tobin and several other people also came to see me.

When the season closed my red books showed that I had received from my garden $80.07. My total expenses were $1.45. This left me a net profit of $78.62.

My big cucumber was on exhibition at the Truck Growers' Exhibit at the Hotel La Salle, Chicago. I told Mr. Hart I wanted the seeds of this big cucumber. He said he would see that I would get them. A short time ago our teacher, Mr. Jackson, received a letter from Mr. Hart, and in the envelope there were my cucumber seeds in another envelope marked "Paul's Cucumber seeds."

I am going to join the Garden Club again next year and plant the seeds from my big cucumber.

Respectfully yours,

Paul Greco,
Dist. 146, Division Three.

PROFIT IN FLOWERS

One day in April Mr. Shepard measured my garden and found that it contained 34 sq. rods.

I planted asters, sweet peas, gladiolas, stocks and snapdragons.

My asters were good and I picked the first ones about the middle of July. I had all early varieties. I shipped them to Percy Jones in Chicago. Many of them we took directly down to the retail houses with the auto. I made $103.10 on the asters.

My sweet peas were pretty fair. I had ordered Blanche Fairy, but they sent me another kind. They did not sell as well. Being very busy with my garden I did not get them all stacked up, so many of them were lying on the ground and, consequently, spoiled. On my sweet peas I made $6.40.

The gladiolas were fine. My father said that he never saw them any better than mine were. I received 5 cents apiece for them and made $34.60 on the gladiolas.

The snapdragons were not very good, on account of the dry weather. I sold $4.85 worth of snapdragons.

The stalks were very good. I had red, white, pink and purple. I made $33.00 on stalks. All together I made a total of $172.20, after my expenses were paid.

Lucile Brooks,
Dist. 70, Div. 2.

SCHOOL-COMMUNITY GARDENS

In villages where garden space is not available at the pupils' home, a School-Community Garden, well organized and thoroughly supervised can be carried out with marked success.

The teachers, or directors may rent a plot of land as near the school building as possible and organize a School-Community Garden Club, renting a certain portion of land to each member. The size of the plot rented to each pupil must be determined by the age and ability of the child, but in no case should it exceed 16 square rods.

The rent of land, cost of fertilizer, plowing and preparing seed bed must be apportioned to each pupil according to the size of his garden plot.

Pupils' names should be displayed on their individual plots.

Note: Study carefully the outline for home gardens.

A School-Community Garden Project

An Onion Project, Cook Co., Ill.

Credit

Credits will be granted upon the following conditions:

(a) The project must be completed.
(b) The garden must at all times be free from weeds, and well tilled.
(c) Gross Receipts:
  (1) Five dollars on five square rods or less.
  (2) One dollar per square rod on from 5 to 16 square rods.
  (3) Sixteen dollars plus fifty cents for every square rod over 16.
(d) Recommendation of the Teacher.
(e) Recommendation of the Country Life Director.

This picture is an excellent illustration of a community garden project in full swing.

In all garden projects provision for encouraging summer supervision is essential.

CANNING PROJECT

1. Three or more pupils, at least eleven years of age, and having the co-operation of their mothers may form a canning club.
2. Meetings, directed by the teacher, are to be held at the homes of members or at the schoolhouse.
3. All canning must be done at these meetings.
4. Records, lecture charts, and study of canning to be taken up between November 1st and following May 1st.
5. Canning must be done by the cold pack process as outlined by the United States Department of Agriculture.
6. Canned products must be in standard packs.
7. While canning, pupils must wear white overall aprons and caps.
8. Pupils must can at least sixty jars or tin cans as follows: six jars of tomatoes; six jars of root or tuber vegetables; six jars of squash or pumpkin; six jars of soft fruits; six jars of hard fruits; thirty jars of miscellaneous.
9. The club must make a public exhibition and demonstration.
10. The canned products must be used in the home, sold, or canned at a fair rate per jar for labor.

Credit

Credit will be granted upon the following conditions:

(a) The pupil must complete the course as outlined.
(b) Recommendation of the teacher.
(c) Recommendation of the country life director.

Here, it may be observed that careful instruction is given so that intelligent work by the best known processes may be done.

POULTRY PROJECT

1. Parents co-operation must be secured.
2. Pupils must be at least ten years of age.
3. A pen of six chickens, a pen of four ducks, a trio of geese or a pair of turkeys will be the minimum number required. One kind of fowls to be kept.
4. Each member's poultry must be known by a distinguishing mark or kept in a separate enclosure.
5. Hatching and raising fowls is a part of the project. May raise any one kind of fowls.
6. Should set at least 30 chicken, 20 duck, 15 goose or 10 turkey eggs. At least one-half to be pure bred.

7. Ducks and geese are especially recommended for the Poultry School-Home Project.

Credit

Credit will be granted on the following conditions:
(a) Gross receipt of at least ten dollars.
(b) Recommendation of the Teacher.
(c) Recommendation of the Country Life Director.

THE STORY OF A POULTRY PROJECT AS TOLD BY THE CHILD

My Geese

One day we were in school and our teacher told us that we could raise poultry or have a garden during the summer. When I got home that night, I asked my mother if I could have poultry. She said I should ask my father. I asked him. He said I could, so I decided I would raise geese.

The next night while I was hunting eggs in the chicken house I heard some hens clucking. I thought that would be a good chance for me. I caught the hens and put them in a coop and then I bought a half dozen goose eggs for $1.00. Next I found two boxes and made a nice nest in each box. I put three eggs in each nest and set one hen on one nest and set the other hen on the other nest. Then I put each hen's box in a coop. I fed and watered them every morning. They both set fine for a couple of days. But one morning when I went to feed them one hen was off her nest and cackling. I was so cross at her I got a stick and chased her out and I tell you she went out faster than she went in. I felt the eggs and they were still warm so I ran to the chicken house and got another hen and set her on the nest. She sat very quietly.

At the end of the four weeks I looked under the hens and not an egg was picked. I thought I would let them set a while longer. A week later I looked again and no eggs were picked yet, so I put them in luke warm water and they didn't move, so I threw them away. They all were rotten.

I was disappointed, but I did not give up. When there were some more hens clucking I bought a dozen goose eggs for $2.00. Then I made three nests. I put five eggs in one nest, five eggs in another and two eggs and four duck eggs in the other nest. I put the boxes in a coop, then I set a hen on each nest. I also watered and fed these every morning. All three of them sat nicely the whole four weeks. But the last day of the four weeks when I went to feed them, one hen was dead on the nest. The eggs were still warm so I put another hen on the nest.

The next day I went to look if any geese were hatched. Some eggs were picked, but none were out yet. The next day I looked again and six little geese were hatched. I put some cotton in a box and put the geese in and took them into the house by the stove. I let the hens set a while longer, but no more little geese were hatched. Then I put the little geese with one hen and put them in a coop and kept them there till they could walk pretty well. My father made a little cage that I fed them in. When they got quite big I let them run loose. Every little while they went out on the road. Then I would have to chase them in because they would be run over by some vehicle. One morning when I went to let out my geese one of them was lying dead in the coop.

I did not have very good luck in hatching them, so I thought I would just buy the goslings. June 14 I bought seven little goslings. So now I have a dozen. I put another hen with these goslings. I thought she wouldn't take them, but she took them as though they were her own.

Quite a while after this when my geese started to feather, five of them ran away while I was lying on the couch taking a rest. When I got up I looked for

Lesson on Seed Testing with Germination Box

Pets and Corn Show Project

them, but no geese were to be seen. I called and called, but they did not come. I walked up the road about a mile, but I could not find them, so I came back home. When I got near the house I heard something peeping in the clover. I looked in there and as sure as I am writing my story, there they were all in a bunch as tired out as they could be. I went to the house and got a box, then I put the geese in and took them home, and believe me, they were glad to get out of the clover. I thought that would be enough for me, so I put 220 square feet of fencing around the front yard, which cost me $3.60. Then I locked the geese up. After a while I moved the fence and put it in a different place. At night I put them in a coop and in the morning I locked them in their yard.

I took up a $40 soap order, of which $20 was my own. With $10 I bought 13 geese and with the other $10 I paid up the rest of my expenses.

A few days later some of the geese died. The next day one of them was lame in its back and couldn't walk. I thought it would get better so I put some liniment on its back and wrapped it in cotton and put it in a box. The next morning it was dead. I thought I would sell them before they all died, so I sold the ten geese for $10. I did not make anything, but I did not lose anything either. Then I had twelve geese left and two ducks. But one Sunday it rained so hard I did not get them under shelter in time and one of them was killed by the rain. So now I only had eleven geese and the two ducks.

One day while I was ironing some clothes, Mr. Farr and Miss Smith came over to see them. They were quite big then.

The next Saturday my teacher came over and took my picture with my geese. I had such a hard time getting them together. I just got done feeding them and they were not hungry, so they wouldn't come when I called them. But that didn't make any difference, I got them together in the end. Now they are big and fat and are starting to lose their feathers. My profit is $39.79.

Helen Runge,
Dist. 41, Div. 1.

SEWING SCHOOL-HOME PROJECT

The particular work outlined for each month should be taught and carefully practiced.

In the following scheme the outline of work for each month is followed by a list from which an article to be made that month should be chosen.

First Year

September—Basting and Hemming.
Articles—Washcloth, handkerchief, hand towel; tea towel or table square.
October—Overhanding.
Articles—Work bag; pin balls, holders or bag made of ribbon.
November—Decorative Stitches.
Outline stitch, feather stitch, chain stitch, darning stitch.
Article—Book cover, tray cover, table cover or simple sewing bag.
December—Optional Work.
Costumes for entertainments and various Christmas gifts as suggested by teacher or leader, based upon stitches club member has already learned.
January—Machine practice; putting on a band; buttonholes; sewing on buttons.
Articles—Kitchen apron, cooking cap; sunbonnets.
February—Making a hemmed or one piece placket. French-seam.
Article—Underskirt or nightgown.
March—Mending (Hemmed patch, Overhand patch). Crocheting.

Articles—Simple lace; slippers, rugs crocheted with carpet warp or braided rag rugs.

April—Darning (Learn two darns for stocking, one in the toe and one in the heel).
Articles—Two pairs of stockings darned; stocking-bag.

May—Review:
Articles—Doily, sofa pillow, something for home, using one of the decorative stitches learned this year.

Second Year

September—Gathering: Putting on band; whipping lace on by hand.
Articles—Small apron of fine muslin made by hand.

October—Simple and double hemstitching.
Articles—Towel, pillow case.

November—Bias; cutting; piecing.
Article—Gertrude-slip.

December—Various Christmas gifts.

January—Felled seam.
Articles—Princess slip or corset cover.

February—French hem; embroidering initials.
Articles—Napkin; runner or table cover.

March—Review.
Articles—Piece of underwear, or garment suggested by the mother or teacher.

April and May—Setting in a sleeve; putting on a collar; eyelet.
Article—Small child's slip-over dress or middy blouse.

Third Year

September—Study of suitable material.
Article—Sewing bag and needle case.

October—Pattern Placing; cutting.
Articles—Drawers; bloomers; rompers.

November—Scalloped embroidery stitch.
Articles—Cover for pin cushion; tray cloth, or lunch cloth.

December—Christmas gifts; knitting.

January—Pattern placing.
Articles—Nightgown or kimona.

February—Smocking.
Article—Smock or blouse; No. 720-Butterick (good pattern).

March—Altering of pattern.
Article—Shirt waist; middy blouse.

April and May—Review.
Article—Simple wash dress.

BUSINESS PROJECT

(1) To enter, pupils must be at least 11 years of age.
(2) The co-operation of the parents must first be secured.

Recognized Business Projects

1. Conducting a news stand or agency.
2. Operating a printing or publishing business.
3. Operating a laundry business or agency.
4. Conducting a store, shop, stand, etc.
5. Operating a dairy business.
6. Conducting a legitimate buying or selling business.

Credit

Credits will be granted upon the following conditions:

(a) A net profit of at least $40.00 must be shown.
(b) Recommendation of the teacher.
(c) Recommendation of the Country Life Director.

FIELD PROJECT

1. Pupils must obtain parents consent and co-operation.
2. Pupils over ten years of age are to rent from their parents a plot of land, paying the usual rent.
3. Pupils are to cultivate their plots under the joint supervision of their parents, teacher, and the Country Life Director.
4. Sign-Boards should be made before the first of March.

Location of Plot

1. The pupil's plot should be as near the home on his father's farm as can be secured.
2. When no land is available on the parents' farm, a plot should be rented.
3. Father should locate the plot. He knows the soil, drainage, etc.

Size of Plot

1. The plot must not be less than one-fourth acre, nor more than one acre.
2. The plot selected by the pupil's parents is the *right* plot.

Measuring of Plot

1. Pupils should stake off, measure and draw diagrams of their plots, which must be filed in their record books.
2. The Country Life Director will assist pupils in verifying these measurements upon visiting the plot.

What to Plant

1. Ask your father; he knows best. Do not plant anything he does not think you should, for you will need his advice from the beginning to the end.
2. *You* can grow any crop that any other pupil in your neighborhood can grow.
3. Some profitable field crops are: corn, sugar beets, potatoes, wheat, oats, rye, hubbard squash, and pickles.

Market

1. Study carefully market conditions in your locality before deciding what to plant.
2. Do not grow what cannot be readily marketed.
3. Consult your parents; they know market conditions.
4. Grow only those things they tell you can be marketed profitably.

Credit

Credit will be granted upon the following conditions:

(a) The project must be completed.
(b) The field must be at all times free from weeds and well tilled.
(c) Gross receipts of twenty dollars must be shown.
(d) Recommendation of the teacher.
(e) Recommendation of the Country Life Director.

MY CORN CROP

Just after Christmas, last year, Mr. Bright and Mr. Shepard came to our school and asked us to join the garden club. We had been talking about it before with Mrs. Huntley, our teacher, and I had already made up my mind to join it and raise corn.

One year ago last fall I plowed my ground. It was pretty hard, for it had not been plowed for twelve long years. It was one hundred nine square rods of sod ground.

In the spring, as soon as the ground thawed, I disked it twice and harrowed it four times. It was pretty well worked up then. I decided that I could make more by raising sweet corn than by raising anything else, as we can dispose of that easily here. I found out that the golf clubs liked different kinds of corn—the Eidelwild liked Black Mexican and the Homewood Club liked Country Gentleman.

On April 25th I planted Early and Golden Bantam seed. It did not come up for seven days and looked pretty weak when it did come up. April 30th I planted Country Gentleman and Black Mexican seed. I did not cultivate it until three weeks later. It was pretty small then but soon started to grow very fast. I cultivated it six times after that and hoed it four times. When it was two feet high the creek overflowed and covered the entire field. I thought, "Good-bye, corn!" but the next morning the water went down and I was glad of it. It did not hurt the corn.

About the middle of May I planted four rows of popcorn. It grew rapidly and I got about fifteen bushels from it. Well, it is all over now and I have made good, as the entire crop has given me a profit of $134.04. I expect to be a member of the garden club next year. I put my money in the bank in Chicago Heights.

LESTER POWIS,
District 166, Division Five.

MY FIRST FARM ACCOUNT

Last year I joined the garden club. I bought twenty-five pounds of onion set seed and then I rented sixty-nine square rods of land from my grandfather. My uncle sowed my onion seed for me. My mother and grandfather instructed me in onion culture and advised me as to some of the latest and best methods of raising sets. I followed their advice and my crop turned out to be very nice. The profit which I have made on my crop I am going to give to my mother, and she says that she is going to use the money for music lessons for me and my sister.

Following is the itemized account of my receipts and expenditures:

Receipts

Sept. 24.	6,465 lbs. onion sets at 3½c	$268.62
Oct. 1.	587 lbs. over runs at 1¼c	7.33
	Total	$275.95

Expenditures

Nov. 2.	Manure and hauling same	$ 9.00
Nov. 4.	Plowing	1.80
Feb. 17.	25 lbs. onion seed	18.75
April 10.	Preparing land for seeding	1.00
April 10.	Sowing 25 lbs. onion seed	.65
May 14.	Wheel-hoeing, 4½ hours	.68
May 18.	Weeding, 20 hours	3.00
May 28.	Wheel-hoeing, 4½ hours	.68

June 7.	Weeding, 20 hours	3.00
Aug. 6.	Loosening sets with harvester	.75
Aug. 6	Harvesting 485 baskets at 5c	24.25
Aug. 6.	5 men assisting at harvesting, stacking and covering onion crates, 25 hours at 15c	3.75
Aug. 6.	Tarpaper to cover stacks	.59
Aug. 6.	26 lunches at 15c	3.90
Aug. 6.	Rent of 114 onion crates at 5c	5.70
Sept. 19.	Grading 192 bushels onion sets at 3c	5.76
Sept. 19.	Marketing	7.00
Oct. 1.	Rent for 69 square rods of land	7.50
	Total	$102.12
	Balance	$173.83

HERBERT KOELPER,
District 70, Division 2.

VIII. COOKING PROJECT

1. This work should be done in the homes or in the school by at least three girls who have secured the co-operation of their mothers.
2. Girls must be at least eleven years old.
3. A meeting must be held in the home or school at least once a month.
4. The teacher must attend at least one meeting every month.
5. Instruction in cooking is to be given by the teacher, a mother, or some other qualified person.

Cooking Project Requirements

September—Learning to set the table properly. Learning to wait upon table.
October—Preparing one or more kinds of plain boiled vegetables: potatoes, onions or cabbage.
November—Preparing one or more vegetable soups: tomato soup; pea soup; potato soup or mixed vegetable soup.
December—Learning to make at least three kinds of Christmas candy and one kind of Christmas cookies.
January—Baking bread, rolls or biscuits.
February—Preparing meat by pan broiling or roasting. Baking beans or preparing rice.
March—Making a cake of any kind.
April—Making one or more kinds of salads.
May—Making a pie or pudding.

Credit

Credits will be granted upon the following conditions:
(a) The project must be completed.
(b) Recommendation of the teacher.
(c) Recommendation of the Country Life Director.

IX. MUSIC PROJECT

1. Pupils must have parents' consent.
2. Pupils must be enrolled on or before Oct. 1.
3. Pupils must take at least 36 one-half hour (or hour) lessons during the year.
4. Pupils taking vocal music must practice at least one-half hour per day.

Those taking instrumental music must practice at least one hour per day.

5. Instructor in music must be a graduate from a standard music school.

Credit

Credit will be granted upon the following conditions:

(a) Recommendation by the instructor.
(b) Recommendation by the teacher.
(c) Recommendation by the Country Life Director.

X. COW TESTING PROJECT

1. A pupil must be at least twelve years of age.
2. The aid and sympathy of the parents is essential.
3. Each member must select two of his fathers's cows for testing; the test to run for a period of five months.
4. Samples of milk from each cow will be brought to school on the same day of each week for testing. The Babcock Method of testing will be used.
5. Members will do the testing at the school house under the direction of their teacher and the Country Life Director.
6. Members must ascertain, by weighing, the amount of milk produced by the cows under test on the days samples are tested.
7. Pupils must ascertain the weights of the different feeds consumed by the cows under test on the days samples are tested.
8. The following data must be kept:
   (a) Date of each test.
   (b) Weight of milk.
   (c) Per cent of butter fat.
   (d) Price of butter.
   (e) Value of butter.
   (f) Pounds of different feed consumed.
   (g) Market prices of different feed consumed.
   (h) Value of feed consumed.
   (i) Net profit or loss.

Credit

Credit will be granted upon the following conditions:

(a) The project must be completed.
(b) Recommendation of the teacher.
(c) Recommendation of the Country Life Director.

XI. WAGE PROJECT

1. Pupils must be at least twelve years of age.
2. Parents' co-operation must be secured.
3. Money must be earned by working at some legitimate trade, profession, or other useful occupation, not included elsewhere in this course.
4. An exact *itemized* account of all money earned and how it was disposed of must be kept.
5. At the close of the year a composition of at least 200 words must be written, in addition to the large illustrated booklet, on at least one of the trades or professions in which the money was earned.

Credit

Credit will be granted upon the following conditions:

(a) A total earning of at least $60.00 must be shown.

Pop Corn—A Profitable Project

A Calf Project

(b) The pupil must satisfy his teacher and Country Life Director that the money has been banked, loaned or wisely expended.
(c) Recommendation of teacher.
(d) Recommendation of Country Life Director.

Effect of Work

When our teacher spoke to us about a project I at once consulted Webster's dictionary. Now, the dictionary says a good many things about the word "project," and from all I read in the dictionary about the word "project" I concluded that a "project" is anything done in a systematic and proper way. So I decided to enter the wage project, earn as much money as I could, and keep an account of it in a systematic way.

I worked on the farm. I like to work on the farm, and have decided to stay on the farm, because the farmer is the biggest business man of them all. If he should quit working the whole world would starve. ERNEST MEYER,
District 59, Elk Grove Township.

One boy acted as janitor for the district school for his wage project.

The enthusiasm for plain, honest work, the habits of thrift, the wholesome co-operation between parents and child, the pride of home and school in the child's accomplishments are the invaluble by-products of his work. It makes the child feel that he is somebody of real importance, that there is worth while work for him to do in this world, and that he and his work are appreciated.

XII. CALF PROJECT

1. Any pupil ten years old or over may become a member of the Calf Club School-Home Project by the purchase of a female calf under 3 months of age.
2. The calf should be weighed when purchased, and the weight recorded by the pupil in his record book. The purchase price shall also be recorded at the same time.
3. The calf must be fed and otherwise cared for by the pupil.
4. When the calf is six months old it shall be weighed and its value estimated by two competent persons. The weight and value shall both be recorded in the pupil's record book.
5. The expenses of the up-keep of the calf shall be accurately kept in the pupil's record book.
6. The weight and value of the calf shall again be taken when the calf is one year old; again at two years old; again at three years old. Accurate records shall be kept by the pupil in all such cases.
7. As soon as possible after the purchase of the calf, the pupil shall select a suitable name by which the calf shall thenceforth be known.
8. The calf project shall close when the calf reaches three years of age, at which time it shall be sold, or its value estimated by three disinterested persons.
9. In case a pupil shall sell or otherwise dispose of calf prior to three years from his entry into the project, his calf project is closed at such time.
10. A pupil having closed out his calf project may re-enter the project by coming into ownership of another calf.

Credit

Credit will be granted upon the following conditions:

(a) The pupil shall be entitled to one achievement credit for each year of the conduct of his calf project.

(b) Recommendation of his teacher.
(c) Recommendation of his Country Life Director.

I bought a calf for ten dollars. I brought it home and put it in the barn and fed it morning, noon and evening with milk. About two weeks later I went to town and bought some cornmeal which I fed to the calf three times each day. About the middle of May I began to hitch it out where it could get the fresh grass to eat. When I would get home from school I would take the calf in the barn and feed it. I kept it out every day all summer on the chain. It got along nicely and grew rapidly all summer. In August I put it into the pasture along with other calves. About the last of October I took it back to the barnyard. It can now eat corn and oats which I feed it every day. I give my calf plenty of fresh water every morning and evening. My calf is now worth $48.00. Taking away my expenses I have made a clear profit of $34.75.

ELLON STRUEVE,
District 82, Leydon Twp.

XII. PIG PROJECT

1. Parents' co-operation must be secured.
2. A pupil must be at least ten years of age.
3. Each member must secure one or more pigs, not more than two months old.
4. The record must show cost, age, sex, breed and weight of pig at beginning of project.
5. When a litter is raised the record must show number farrowed and weight of each pig at weaning time at which time the feeding begins.
6. A complete record of all feeds as to weight and value, together with value of pasture used, must be kept.
7. At the close of the project period, not exceeding one year, the net profit will show the difference between the receipts from sale of pigs or estimated value at market price, and initial cost, feed, labor, and other expenses.

Credit

Credit will be granted upon the following conditions:
(a) Recommendation of the teacher.
(b) Recommendation of the Country Life Director.

XIII. SHEEP PROJECT

1. Parents' co-operation must be secured.
2. A pupil must be at least ten years of age.
3. Each member must secure two or more ewe lambs, or one or more ewes.
4. There should be a community organization. This organization should own a thorough-bred male.
5. The record must show cost, age, breed and weight at beginning of project.
6. A complete estimated record of all feeds as to weight and as to value of pasture used must be kept.
7. At the close of the project period of one year, the net profit will show the difference between the receipts from the sale of lambs and wool or estimated value and initial cost, feed, labor and other expenses.

Credit

Credit will be granted upon the following conditions:
(a) Recommendation of the teacher.
(b) Recommendation of the Country Life Director.

PROJECTS USED IN RURAL SCHOOLS AS A BASIS FOR ACADEMIC WORK

Education, to be practical, must teach to think in terms of life and action. No child is interested in abstract facts, but any child may easily be interested if taught in terms of action.

The following suggestions are made in the hope of giving teachers and pupils some examples as to how projects may be made the basis of learning:

The Sign Board

1. Study of board feet. Number of board feet in one sign. Number of signs that can be made from boxes and boards brought in by the pupils. (Measuring, straight lines, right angles, etc.)

2. Painting the boards. Find the number of square feet a can of paint of a certain size will cover, from the dealer. Estimate the amount of paint necessary for your school, giving each board two coats. (Surface measure.)

3. Study of paint. Of what is it made up? Where are the ingredients obtained? How? Etc. (Geography and Science.)

4. Study of lumber. Different kinds of lumber represented in the different sign boards of your school. Find where these trees grew. How was the lumber brought here? Write an autobiography of a sign board, etc. (Geography and Language.)

English (Language, Grammar, Spelling. Reading, Writing)

1. Write the story of your School-Home Project on paper. Rewrite it on the blackboard. Class correct the story on the board. One pupil read the story as you think the writer meant to have it sound.

2. Select words misspelled in these stories for daily spelling lessons.

3. Oral English. Tell the class of a visit at your home made by the Country Life Director last summer. Tell how you raised and disposed of a certain crop; tell how you made a certain article in the sewing course; tell how you run your business project, etc. Have the class reproduce these stories.

4. Keeping the minutes of the School-Home Project meetings.

Geography

1. What became of the products raised by the local Garden Project members? How were they disposed of? If shipped away, how? Where? What was done with them there, etc.

2. Study of textiles in the Sewing Project work. Where were they produced? Raw products from which they were made. Where raised? Where manufactured? Why? How colored? Where were the dyes made? Why are they scarce now? etc.

3. In the Cooking Project work, where did the raw products come from? How brought here? How raised? Describe their native climates, etc. Table linen and silverware, where made? How? etc.

4. Canning Project. Canning as an industry.

History

1. Garden and Field Projects bring in the history of such articles as the potato, field corn, tomato, wheat, etc. Where were these things originated? How did they come here? What influence have they had on settlement of the country?

John Stephany, of District 78, grew potatoes on his one-tenth acre School-Home Project.

1. Have John relate the origin and discovery of the potato plant. Why called Irish potato?

2. Its introduction as a staple food product.
3. What effect its becoming a staple food product had in increasing the density of population in certain countries.
4. In what countries is it the chief food of the people? Why?
5. What relation has potato culture to the present European War?
6. During what years was the Irish immigration to America at its height? (a) Trace the potato as the cause. (b) The effect on America. (c) The effect on Ireland.
7. Why have European people come to depend more upon potatoes for sustenance than do the people of the United States?
8. Relate some interesting historical ways in which potato eating was promoted.
9. What effect has the potato had in distributing population in various latitudes?
10. Name five sections in five different states that have greatly increased in population and wealth because of their adaptability to potato culture.

SCIENCE

Waldeman Lietzen, of District 86, cultivated sweet corn on his one-tenth acre School-Home Project.

1. In testing his seed, how did he provide heat, moisture, light and drainage?
2. Prove by experiment the need of air (oxygen) for germination. Place a few kernels of corn in a bottle and fill completely with boiled water that has just been cooled. Cork bottle tightly. Note results.
3. Test soil for acidity with litmus paper.
4. If acidity is shown, how can it be corrected?
5. Give reasons for hoeing and cultivating frequently.
6. What is the essential difference between sweet and Indian corn?
7. Why was the corn raised by the Indians different from the corn of today?
8. Name, locate and describe two flowers of the corn plant.
9. What part of the ear of corn forms first?
10. In which state, North Dakota or Louisiana, does corn mature in the least number of days? Why?
11. What climatic conditions are required for profitable growing of corn?
12. Locate the Corn Belt of the United States.
13. What industries in the Corn Belt are dependent upon its growth? Why?
14. Name ten products from the kernel of corn. Five from the cob.
15. Name some of the principal enemies of the corn plant.

ARITHMETIC

1. (Garden.) Harry Uerkwitz of District 136 had a plot of potatoes 21 feet by 260 feet. His expenses were $1.85. He raised 24 bushels of potatoes and sold them at $1.75 per bushel. What was his profit? Find the yield per acre at the same rate. Find the profit per acre.
2. (Garden.) Mabel Steil had one-eighth of an acre planted to onions. She sold them as follows: August 31st, 6 bags, at 90c; October 4th, 10 bags, at $1.60; November 10th, 15 bags, at $2.00; November 27th, 5 bags, at $2.20. What were her total receipts? What was the average price per bag?
3. (Sewing.) In order to complete the outlined Sewing Course, Effie Speyer of District 151 purchased the following dry goods: 1 yard lawn at 20c, 1 yard toweling at 10c, 1½ yard gingham at 21c, ribbon for 10c, hooks and eyes for 5c, 1 card buttons for 5c, 4 yards goods at 12c, 1 yard goods at 25c, patterns for 10c 1¾ yards goods at 16c per yard. Find the total amount of the articles purchased. Make out a cash slip for these articles.

4. (Sewing.) There were 14 girls in the sewing club of District 169. They purchased the necessary materials for their dresses together. The bill for the total amount was as follows: 35 yards gingham at 18c per yard, 7 yards plain gingham for trimming at 25c per yard, 7 spools white thread at 5c each, 14 cards buttons at 6c each, 3 patterns 15c, 7 bolts seam tape at 10c. Find the total cost. Find the cost per girl.

5. (Canning.) Margaret Markiewicz, District 118, sold 63 lbs of beans at 5c per lb. The purchaser canned these in 35 one-quart cans. What did the beans cost per quart? What would Margaret have gained or lost had she canned the beans herself at a cost of 3½ per can and sold them at 10c per can?

6. (Canning.) The canning club of the Riverdale school canned 162 jars of fruits and vegetables. These were as follows: 24 cans of tomatoes, 50 cans of peaches, 39 cans of pears, 29 cans of beets, 13 cans of carrots and 7 cans of pumpkin. If the tomatoes cost 80c, the peaches $4.50, the pears $5.00, beets 50c, carrots 25c, pumpkin 20c, find the total cost of the fruits and vegetables canned. Find the per cent of each kind of product canned. Five girls did the work and canned as follows: 15, 25, 75, 16 and 31 jars. Find the per cent of the total number that each girl canned.

7. (Business.) Edward Hahn, District 49, received $357.60 from his business project. His expenses were as follows: 8,000 cabbage plants, $2.00; his father's vegetables as they stood in the field, $75.00; a peddling horse, $50.00; re-shoeing the horse, $1.00. Find his net profit. Find the interest on this money at 3 per cent per annum.

8. (Cow Testing.) Mr. Wenzel's cow tests 4 per cent and Mr. Schnorr's cow tests 4.1 per cent. Each cow gives 25 lbs. of milk a day. When butter-fat is selling at 36c per lb., which cow will yield the greatest profit, and how much?

SILENT READING

School-Home Projects afford excellent reading material, interesting to the child and of practical value.

1. Have the pupils read Bulletins from the Agricultural Colleges relative to the crops the garden club pupils intend to grow; to poultry; to cow testing, and to household science.

2. Let the pupils read stories written by other pupils. This will encourage the pupil writing the story to be careful of his English.

Oral Reading. There should be oral reading of stories and poems relative to project work, such as Whittier's "Barefoot Boy," "The Corn Song," etc.

DANGERS

Don't try to make a project carry too much, or accomplish too much.

While the continuity of work and continued interest is one of the great arguments for the project method, it must not be continued beyond the limits of interest lest fatigue breed distaste for it.

There will be much to teach which the project should not carry.

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